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AFTER-CARE OF THE CONVALESCENT INSANE.

By A. W. HOISHOLT, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

The most successful method of relieving distress among the unemployed poor, who are able and willing to work, and the relief which is at the same time most beneficial to the individual, is to enable him to help himself. This is even more true in the case of a person, male or female, who when discharged from an insane asylum, on recovery from an attack of mental disease, finds himself friendless and penniless, for to him work or occupation is not only a means of existence but a remedial agent, by forcing his thoughts into healthy channels. The chances of obtaining employment are nowadays bad enough for the ordinary unemployed poor, still they are far better situated than their brethren among the convalescent insane. It is unhappily only too true that the general public have no sympathy for these poor unfortunates, or at least their sympathy stops short of anything requiring contact or association with them. Diseases of the mind are not as yet at all understood by people in general, who erroneously consider them equivalent to an at times latent, but often instantaneously provocable, disposition to commit acts of violence. The false idea also prevails that insanity is necessarily incurable, and that it is therefore only dormant in the person who was once an inmate of an asylum, and who in consequence is feared and shunned by society at large. Although there are many noble charitable organizations in this country, laboring faithfully and successfully in behalf of the worthy poor, yet none of them are capable of rendering the needed assistance to the convalescent indigent insane. On account of the prevalent popular ideas regarding the insane and convalescents from insanity, the existing benevolent societies are either afraid, or are devoid of the requisite understanding to deal with this class appealing to their charities. While the ordinary poor are as a rule able to do any kind of work that may present itself, the work to be procured for the convalescent insane must be of a kind to suit their mental as well as their physical condition—preventive treatment must be considered in selecting the occupation, if it is to be a remedial agent.

To meet the requirements of this charitable idea, a society, calling itself "The After-care Association of the Insane," was recently formed in England, that, according to a report in the *British Medical Journal*, of June 14, 1890, appears to be doing excellent work. During the past year suitable employment was found for fifty female convalescents, leaving asylums in a poor and friendless condition, and other convalescents had been boarded out in cottages with great success under the superintendence of local friends. The cases assisted were from eighteen different asylums. Among the members of the society are to be found clergymen, physicians and charitable people in general. Such a society would certainly find a rich field for operation in California. Not only is the number of commitments to the asylums unusually large and the discharges presumably in proportion, but the condition in which the convalescent indigent insane finds himself when he leaves the asylum-gate, is in this State exceptionally distressing. The residents of California are, generally speaking, but little inclined to interest themselves in the cause of strangers, and the poor, friendless man who is without employment is, as a rule, regarded as a "tramp." Should such unfortunates succeed in finding work, it naturally follows that being forced to take whatever is offered, the work obtained in many cases results in physical and mental exhaustion. At the same time employers do not exert themselves in the least to surround their servants with even the most modest home comforts. Thus it is customary for farm laborers to "pack" their own blankets; their sleeping accommodations, too often, unseemly outhouses, or in the summer months the sheltered side of a convenient straw-stack. In relieving this distress, which in the case of female convalescents is much greater than among the male, we would not only be rendering assistance to individuals, but the State at large would also be benefited. Procuring suitable employment for convalescents would act as a prophylactic measure with regard to relapses, thus indirectly reducing the number of inmates, and this latter result would also be arrived at by enabling the removal from asylum care of patients not in a condition to be discharged if left to care for themselves. This plan of relieving distress among the convalescent indigent insane may be carried into effect by agitation among the charitably inclined, whether in or out of the medical profession, for the formation of a society, similar to that already existing in England. It would, perhaps, be best to begin this agitation by enlisting the sympathy of the clergy and of our own profession throughout the State.

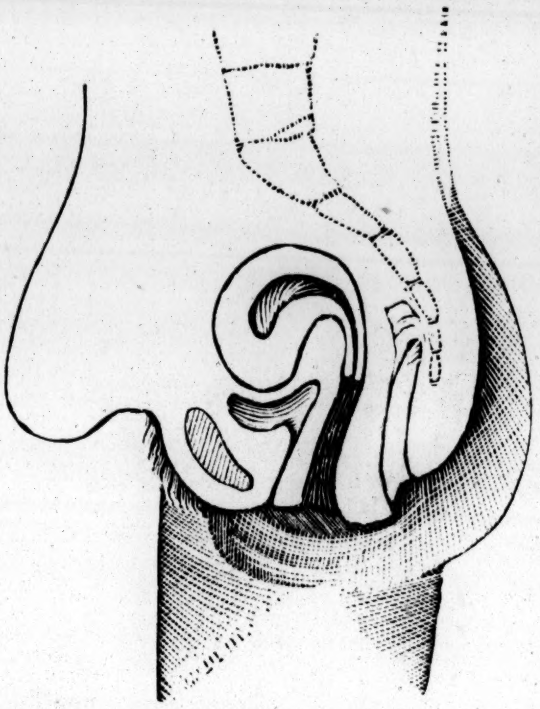
A CASE OF OBSTRUCTED LABOR FROM ANTEFLEXION.

By G. F. G. MORGAN, M. D., Olema, Cal.

The following grave experience, with fatal result, may be of interest to the readers of THE MEDICAL TIMES.

I was recently called to an obstetrical case, in which the patient had already been in labor for one day and one night. It was 9 P. M. when I reached the bedside, and, apparently, there had been no progress made during the previous hours of labor. I inquired if the bowels had been evacuated. They had. I raised the patient on her feet and gave quiniæ sulph., grs. 5, as a tonic, and oxytoxic; examinations were made from time to time. About 8 or 9 A. M. next day, I could just touch the head with my fingers *in vulvam.* About 12:30 P. M. the water broke and the head descended near to the pubic arch. All this time the patient was making the most tremendous efforts at expulsion, with no apparent results. It did seem as though something must be holding back the child, other than the mere hindrance by the mother's lower parts, which seemed roomy enough.

At 6:30 P. M. I proposed to the husband and patient o use the forceps. They objected. I then tried to turn, and introducing my hand passed it up to the back of the child, and there lost the rest of the body and feet through what seemed to be a narrow passage, the tension on which was so great that I could not pass my hand further! I then tried extraction by forceps, but failed, after faithful effort. Having no cranioclast and fearing for the safety of the woman, I dispatched a messenger for the nearest medical assistance and instrument (30 miles away). I then gave the suffering patient sulphate of morphine, ½ grain, at three different times (in all, 1½ grains); but it seemed to have no effect on her, for she still labored on all night. About 5 A. M. next morning she and her husband begged me to again try to deliver by forceps; and as the head had been crushed by the efforts of the previous night and seemed a little lower, it did appear as though the babe might be delivered. I tried a number of times, but failed to move the child. I then determined to again try version, if possible to introduce my hand. The internal tension was less. I explored and found a foot, over a kind of ridge, in a kind of pocket. Drew down this foot and placed a piece of cord around the ankle (the child being already dead). Replaced this foot and found the other foot, over the same ridge and in this pocket. Drew it down and fastened a cord around the ankle. Then gently forced the head up, turned the body, and drew down the feet. The shoulders were exceedingly broad and passed the vulva with difficulty, and the infant, which weighed 13½ pounds, was delivered. I gave ʒ i fld. ext. ergot immediately. Waited about 20 or 30 minutes and then removed the placenta. To do this I had to pass my arm up past the elbow, bending my hand over towards the front of the patient's abdomen, and to reach so far that it was necessary for me to completely turn my back to the patient's face. Reaching over thus, at arm's length, I found the placenta at the bottom of the "pocket," really the fundus of the uterus, the latter being badly anteflexed. This condition is shown in the accompanying engraving, though the flexion was more acute than is here indicated. I gave ʒ i fluid ext. ergot, following this by stimulants and restoratives, and made the patient as comfortable as possible.



In attempting to deliver by forceps, I felt sure that the failure so to do was the result of some constriction above. This was pretty true, for upon exploring for the feet, I found that the child lay in the parturient canal, with its back to the mother's back, its face looking forwards. The uterus never descended at all, being firmly imbedded or surrounded by a mass of fatty tissue and possibly by some old adhesions. The acute flexure formed the ridge over which hung the infant's limbs, these being in the uterus, while the rest of the body, from the waist up, was hanging in what was found to be a very abnormally large vagina. The more strenuous the efforts of the woman to expel the child, the more the fundus was bent over and the tenser became the constriction. When the forceps were put on, the tension came upon the little groins, which were in contact with the ridge of the uterus, much in the same position as a hook hung upon a narrow board. It was impossible thus to deliver the infant, as the pull would be directly in line with the shaft or straight part of the hook.

The woman was delivered about 6 A. M. She died of exhaustion about 6 P. M. of the same day. She was a Swiss by birth, the mother of three children. Very short, broad and powerful build, with immense limbs and very fat. Had had considerable trouble in some of her previous labors; having once before been delivered by her husband "holding her up, his arms under hers, while two women pulled on the baby," so vigorously that "the baby fell on the floor and afterwards died!"

This case is interesting as illustrating one of the complications that may arise from anteflexion—especially where the puerperal patient subsequently makes much fat, or where cellulitis binds down the uterus, and so surrounds and imbeds it that its normal descent is prevented at time of parturition.

THE TREATMENT OF DISEASES OF THE STOMACH.

By ALBERT ABRAMS, M. D.,

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The recent progress made in the diagnosis of gastric affections by chemical examination of the stomach contents, has exerted a commensurate influence on the treatment of these diseases. With our advanced knowledge of the physiology and pathology of the stomach, therapeutics is no longer under the guidance of empiricism, but of methods of examination almost mathematically exact. My object in this paper is merely to present a cursory outline of these principles.

Disregarding the anatomical condition which exists, we may differentiate, for therapeutic purposes as well as for succinctness, two distinct anomalies of secretion: (1) Increased production of hydrochloric acid. (2) Diminished production of hydrochloric acid.

Increased Production of Hydrochloric Acid.—The quantitative estimation of hydrochloric acid by titration is a very simple procedure. The patient is directed to consume the following: a plate of soup, a beef steak, a piece of bread and a glass of water. This test meal, recommended by Leube, consisting of the essential elements of a mixed diet, will furnish sufficient evidence of the duration of digestion, motor activity of the stomach, and character of the digestive fluid. About four or five hours after, when digestion is at its height, a soft rubber tube is introduced into the stomach, and a sufficient quantity of fluid is removed for examination. Having ascertained by the usual tests, that with phloroglucin vanillin being the most absolute (phloroglucin 2.0, vanillin 1.0, alcohol 30.0), that hydrochloric acid alone is present in the fluid, we next proceed to determine the amount. After filtering 10 ccm. of the fluid, to which is added about seven drops of tincture of litmus, we pour into a burette a $\frac{1}{10}$ normal soda solution. To the red colored gastric fluid, the soda solution is then slowly added until the mixture becomes blue. Let us suppose that 5.6 ccm. of soda solution was necessary to neutralize 10 ccm. of the gastric fluid, then the following calculation will give the percentage of hydrochloric acid; 1 ccm. of the soda solution will neutralize .00365 of hydrochloric acid; now if 5.6 ccm. of soda solution was necessary to neutralize 10 ccm. of gastric fluid, then 56 ccm. would be necessary to neutralize 100 ccm.

$56 + .00365$ HCl. $= .204$ per cent. of hydrochloric acid.

The results obtained by the preceding test show the percentage of hydrochloric acid in the filtrate, provided that the presence of organic acids, lactic, acetic and butyric, has been excluded. If present, they must first be removed with ether. I frequently employ the following simplified procedure for the quantitative estimation of hydrochloric acid. While yielding only approximate results, it possesses certain advantages for the busy physician. I have in readiness two solutions, one containing 0.15 per cent., the other 0.25 per cent. of hydrochloric acid. These represent respectively the minimum and maximum percentage of acid present in the stomach at the height of digestion. A watery solution of congo-red is first prepared and an equal amount placed in two test tubes. To the one is added, drop by drop, the filtrate from the stomach, until the bluish coloration, reaction of hydrochloric acid, is permanent; *i. e.*, shaking the tube no longer causes the color to disappear. The other tube is used for control tests with the prepared solutions of hydrochloric acid, and from the number of drops necessary to convert the red to a blue solution, it can be determined, approximately, whether the amount of acid is normal, plus or minus. If hydrochloric acid be in excess, we need only refer to the physiology of gastric digestion in order to obtain the indications for treatment. When food is introduced into the stomach, the diastatic ferment of the saliva, ptyalin, converts the starchy elements into dextrin and finally into grape sugar. This first digestive period, called the amylolytic, lasts on an average three-quarters of an hour. After this time free hydrochloric acid is present, amylolytic digestion ceases, and a peptonization of the albumin begins. In hyperacidity, the albuminoid elements of the food are rapidly and thoroughly digested, whereas the starchy elements undergo little or no digestion owing to the early appearance of free hydrochloric acid.

The dietetic treatment, then, of hyperacidity consists in avoiding carbo-hydrates and substituting therefor animal food. The diet consists essentially of milk, eggs and meat, and as the carbo-hydrates are almost indispensable, sugar-water, and tapioca cooked in milk, are permissible in limited quantities. Fluids must be taken in moderation. In hyperacidity, gastralgia may be markedly relieved by the ingestion of animal food. The medicinal treatment consists in the administration of alkalies, preferably bicarbonate of soda, in one or two drachm doses, about two hours after eating, a time when the peptonization of albumin is about completed. The mechanical treatment is lavage of the stomach. This may be carried out by the patient, in severe cases, before each meal, and on retiring, or only at the latter time in mild cases. Washing out the stomach accomplishes two things, the removal of the excessive acid secretion, and of the amylaceous food which has not undergone digestion. Ulcer of the stomach is closely identified with hyperacidity. Nearly all authorities are in accord in ascribing the origin of the round ulcer to two conditions: (1) A lesion of the gastric mucous membrane. (2) A secretion rich in hydrochloric acid. Erosions, and even decided solutions of continuity in the mucosa of the stomach, are capable, under favorable conditions, of rapid cicatrization, but when hydrochloric acid is in excess, not only is cicatrization prevented, but the original ulcer is made larger. Recent ulcers of the stomach are most favorably influenced by the so-called "rest cure," consisting in the main of prohibiting the introduction of food into the stomach and the employment of nutrient enemata for many days, or at least until the more pronounced gastric symptoms have abated. Complete physical rest is secured by confinement in bed. Feeding by the mouth is then permissible, beginning with milk, preferably cold; Cahn having demonstrated that the ingestion of warm food produced a greater secretion of hydrochloric acid. The dietetic treatment later on is much the same as in hyperacidity. Lavage of the stomach after cicatrization of the ulcers is indicated, if hyperacidity persists, as a prophylactic and curative measure.

Diminished Production of Hydrochloric Acid.—In this condition albuminoid digestion is mainly involved. The carbo-hydrates are present in abundance in the stomach, notwithstanding their digestion is facilitated by diminished acidity. Their presence is accounted for by the diminished absorbent and motor activity of the stomach. The diminished acidity also conduces to fermentative changes. Cancer of the stomach may be taken as a type of this secretion anomaly; and the presence of hydrochloric acid in doubtful gastric affections almost positively excludes cancer of this organ. In the dietetic treatment in cancer of the stomach, the diminished production of hydrochloric acid which interferes with the digestion of albuminoids must be considered, and this class of food must be taken sparingly. Peptonized beef preparations and milk may be used. Many persons have a repugnance to milk; this may be overcome by dilution of the milk with water or the addition of cognac or lime water, which serves to promote its digestion. The administration of dilute hydrochloric acid is here indicated. It should be given in large doses, after the amylolytic period of digestion, *i. e.*, about one hour after eating. The symptomatic treatment often demands the relief of pyrosis, in which case the use of alkalies is irrational. The pyrosis in gastric cancer is produced by fermentation, leading to the formation of organic acids, and is best checked by lavage of the stomach with water, to which may advantageously be added certain mild antiseptics. Acute and chronic glandular gastritis belonging to this category are treated in the same manner.

Atony and Dilatation of the Stomach.—The peristaltic action of the stomach is favorably influenced by a normal percentage of hydrochloric acid; when this is diminished and the motor activity of the stomach is correspondingly involved, we have a condition called "atony." As the atonic stomach empties itself incompletely, large masses of food accumulate which by mechanical action and fermentative changes conduce to spontaneous dilatation of the organ. When obstruction at the pyloric orifice exists, the resulting dilatation is called mechanical. The treatment must, of course, first be directed to the cause. The diet should consist of food easily digested, and taken frequently in small quantities, with fluids in moderation. The stomach pump is of the greatest possible service in the treatment of dilatation, by relieving the overburdened organ of undigested masses. For atony of the stomach, strychnine is of value, although greater reliance is placed on mechanical treatment, viz.: Stomach pump, massage and electricity. The latter by means of the galvanic current, with large electrodes, one over the stomach, the other at the verterbral column, is of decided value in many cases.

435 Geary street.

A ROAD-HELP FOR THE COUNTRY DOCTOR.

By Samuel O. L. Potter, A.M., M.D., (Jeff.), Professor of Principles and Practice of Medicine in the Cooper Medical College, of San Francisco.

> "Through rain and mud, in night's distilling dew,
> Through raging tempests—trials not a few,
> The country doctor wends his weary way—
> He does his work, but rarely gets much pay."

It is rarely that we of the medical profession find in the schemes of laymen, aught of benefit to us as individuals. The prevailing sentiment towards doctors of medicine seems to be that every old woman of the past generation knows more than he does—and if an untutored Indian comes along, or a "no sabe" Chinese, claiming to have penetrated Nature's secrets, and to know the arcana of "yarbs," we find our helpless profession abandoned for the aforesaid gullivers of gullible geese. Then we think dark thoughts, and swear black oaths, and vow that never! no! never! will we answer a call from that party again, who has so ruthlessly trampled on our professional position, our professional self-esteem, our olden friendship, and our services, for which no money can ever pay. Yet, at the first call for help from the most aggravating case of the kind, our self-assertion vanishes into thin air, and the divine part of us gains the mastery without a struggle—the profession triumphs over the trade! no boycott idea can live for a moment in the presence of suffering humanity, and remembering that the grateful ancients made Æsculapius a God, we rise to the God-like rank ourselves, and go forth to answer the summons.

Twenty years ago and more, the writer had just such an experience. A man had driven him, at the point of a pitchfork, in humiliation from his ranch; having sought a quarrel for the purpose of avoiding the payment of a bill. Shortly after, this man's wife lay sick unto death, and a doctor was called from miles away, beyond the writer's field of practice. The woman got worse, and in despair, the man sent his child, a girl of ten years, to the doctor he had insulted, begging him to come to his wife. For just a second his human nature hesitated; then, with a "get thee behind me, Satan," the divine part triumphed, he mounted the led horse brought by the child, and at sun-down turned into the country road which led to the place where the wife of his enemy lay in the shadow of death. The child messenger had to push along five miles further for her married sister, and the mother was lying at her sister's house in the valley over the range, having been brought down from her mountain home. The writer inquired the way from the child—was told to go so far on one road, then east a mile on another, then on a trail over a low range of hills, down to the valley beyond, out into the county road, across a creek, and up a side valley to the fifth house on the road from where it left the highway. He started at sundown, lost his way in the chemisal on the dividing range, wandered over the hills all night, and arrived in the valley at daybreak, and at the house by an early hour, to find himself too late, the woman dead, and her tenth baby, too, lying dead in her lifeless arms.

The husband would listen to no excuse, but raved in his passionate madness, accusing the man who had ridden all night, of wilful delay in responding to the call. Again, in humiliation, the doctor left for home, on foot—for his pride refused a horse at the hands of his unjust enemy—and all day long he tramped towards home, to take to his bed with an attack of lumbar rheumatism, which laid him up for a month.

All the trouble noted above, and burned on the brain of him who suffered it, might have been avoided if a rational system of road-naming and country house-numbering had been in operation throughout the county, with guide-boards at the crossings. If the child had said that her mother was at Mrs. Smith's house, No. 30 Cottonwood lane—and a small pocket or key-map of the county showed that road as the fourth, going east, on the main way of the county—the doctor would have ridden straight thereto, without so much as a stop to inquire the road. Leaving his house at sundown, he would have taken a trail across the hills, which he knew would bring him into the county road at a certain point, from which the map made plain that Cottonwood lane was the second branch road to the southward of his course. The number 30 showed him that the house would be found exactly 1½ miles from the beginning of the lane, and on the west side thereof. As each mile along the road is divided into ten equal parts or imaginary blocks, with two house numbers to each, one on each side of the road, the distance along the lane would be exactly one-half the number of the house in miles, pointed off one point, or 1.5 miles. So, without the slightest doubt, the doctor would push along as fast as his nag could go.

Such is a practical view of the benefit which would result from the adoption of Mr. A. L. Bancroft's system of country house-numbering and road-naming; and to no one would the benefit be greater than to the country physician. Every doctor who has known what it means to travel the roads will see at once the advantage to himself, and will never forget the public spirit of a man whose mind is constantly occupied in the development of some idea or other, involving the good of his fellowmen. The doctor can also use it in his office when posting up his mileage charges, for every numbered house shows by its number its exact distance from the beginning of the road it is on.

Physicians who practise in cities have no conception of the troubles attending rural practice. Bad roads are bad enough in either extreme of weather; dust in clouds choking the traveler's respiratory passages, and irritating the delicate mucous membrane of his eyes and nose; or else his way is a continuous series of mishaps, as he is bumped from hole to hole, from one to another of the mud-filled, mud-hidden, spring-smashing, temper-trying traps. But along with the ordinary difficulties, the newcomer in practice in a country town has to learn the neighborhood for thirty miles in every direction; to do so requiring years of petty troubles, the only royal road to the knowledge of the unmarked habitations of the people. Happy will be the doctor who settles where Bancroft's system has been in operation. Many an oath will fail of record on the debtor side of his account in the eternal ledger—many a blow will his poor horse miss, as with calm and quiet equine mind he pulls his unruffled master along to the scenes of his ministrations. And, then, what a boon to the city consultant, called by telegram to No. 96 Ralston road, San Mateo county, by Dr. Jones, of Redwood. In his desk drawer are the county key-maps; taking that of the county named, he gets on the train with confidence, to arrive an hour later at Redwood, and finds there is no one to meet him. No matter—he knew before he left the city, that Ralston road branched off from Ocean-way at number 60, therefore, 3 miles out westward and number 96 would be nearly 5 miles down the road, or a drive of 8 miles in all. His wife is told that he can't get back that night; and when he gets off the train, he hires a buck-board at the stable, and spins along out Ocean-way without losing a minute in asking questions.

Bancroft's ten-block system of house-numbering and road-naming is a real stroke of genius, which could only come from an orderly mind, working through a trained and systematic brain. Simple as great schemes ever are, it is capable of unlimited expansion and indefinite application, so that it might be substituted with advantage for any old-fashioned and cumbersome system in operation anywhere. It is, however, in new countries like ours, that it will find its immediate adoption. Let us see what this is, and we shall understand why Contra Costa county, in the interest of which it was first devised, will lead the world in its geographical arrangement.

The Ten-Block System.—According to Mr. Bancroft's "Ten-Block System," every road is divided into blocks of ten to the mile; each block therefore being 528 feet, or 176 yards, or 8 chains, in length of road frontage. Two house-numbers are assigned to each block, one on each side of the road. Every house in a block is given the number of that block; the first one having the number only, the others being distinguished by the letters of the alphabet in addition, as 96, 96a, 96b, 96c, etc. The numbers thus arranged indicate the distance of the house from the beginning of the road. As there are two numbers to each block, and ten blocks to the mile, to get the distance in miles, the number of the house is divided by 2 and again by 10; thus, 96 divided by 2 gives 48, and this divided by 10 gives 4.8 miles, as the distance of the house No. 96 from the beginning of the road.

Occidental Hotel.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal. and

HENRY GIBBONS, JR., M. D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Rupture of Uterus.—DR. D. BERRY HART reported to the Edinburgh Obstetrical Society, a case of rupture of the uterus, with shoulder presentation. The child had escaped into the abdominal cavity. It was removed by incision and the uterus ligated and amputated. Notwithstanding transfusion, the patient died an hour and a half after the operation. This made the fifth case of rupture of the uterus in Dr. Hart's experience. All the patients had died. In the discussion which followed, DR. SIMPSON expressed the opinion that most cases of rupture resulted from mismanaged labor. Laparotomy had been performed in the only cases of rupture he had seen, but both patients died. The uterus had not been amputated, and he doubted if amputation would have contributed to recovery. DR. BARBOUR questioned a resort to laparotomy unless delivery otherwise were impossible. When attending the late Professor Shroeder's clinic in Berlin, he had been greatly impressed with Professor Schroeder's experiences in such cases. The first cases in which abdominal section had been done with the most careful precautions, had all died, so that when the next presented itself he was so disgusted with the results of section, that he just pulled the child out through the rent and stuck in a drainage tube. To his surprise the patient recovered, and this led him to do the same in subsequent cases, with a like good result.—*Edinburgh Medical Journal*, July, 1890.

Late Pregnancy.—A writer in the *Medical World* reports the case of a woman seventy-one years of age, who gave birth to a healthy and well developed boy.

Prolonged Gestation.—DR. RICHARD WILSON reports in the *University Medical Magazine*, for July, 1890, a case of gestation prolonged to the 371st day. The patient, aged 29 years, married February 27, 1889, saw her menses last on March 11, 1889; felt life in July; was delivered March 17, 1890.—*Boston Med. and Sur. Journal*, July 24, 1890. [And yet the fact is not proved. It is well known that the menses may fail to reappear for one, two, or even three months after marriage, without pregnancy having taken place. And a woman who has never experienced the sensation of quickening may well be deceived as to the time of its first appearance.—H. G. JR.]

Pregnancy Vomiting.—DR. LOUISE SEDGWICK reports the case of a woman, two months pregnant, who had vomited food for nearly two weeks, was constantly nauseated, could not sleep and was mentally deranged. In a previous pregnancy, vomiting had been so excessive and uncontrollable that it was deemed necessary to resort to abortion to save life. In the present case, for a few days other means were employed without avail, but finally the negative pole—a large flat electrode—was applied over the stomach, and the positive pole moved up and down the spine in the dorsal region. The current was used for ten minutes and about as strong as the patient could bear—7 or 8 milliamperes. Vomiting had not returned on the following day. The treatment was repeated for six days. A week later there was some vomiting which the current soon relieved, and the patient had no further trouble.—*North American Practitioner*, July, 1890.

Alcohol, Coffee and Tea for Children.—A correspondent of the *Archives of Pediatrics* writes from Paris that there is somewhat of a reaction in regard to the treatmant of diseases of children with alcohol, and that the medicinal value of spirits is probably overestimated by physicians who so often prescribe wine and cognac in the belief that they will strengthen the constitution of delicate children. Professor Nothnagel recently showed a boy of ten who was suffering from liver complaint, brought on by regular doses of spirits given to strengthen him. The correspondent adds: "Spirits, coffee, tea, and even chocolate, should be rigidly excluded from a child's diet. Up to its twelfth or fourteenth year, it should get nothing bnt water, milk and plain nourishing food, with plenty of fresh air." [This accords entirely with my view and experience. The common practice of giving children, even as young as six and eight years of age, coffee and tea at their meals, is most reprehensible. I have many times traced dyspepsia in children directly to the use of coffee. It appears to me to be the duty of the physician to inform parents—who have no thought of any harm from their use—of the injury that may result to growing children, from the employment of these beverages.—H. G. Jr.]

Atropine in Enuresis.—Dr. W. P. Watson having reported thirty cases of enuresis in children, all cured or greatly benefited by atropine, Dr. R. Bruce James was induced to give thorough trial of the drug at an orphan asylum in New York city. Fifteen cases between three and a half and nine years of age were treated. They were given one-hundredth of a grain of sulphate of atropine on going to bed at 6 o'clock. The dose was repeated at 9 o'clock when they were taken up to urinate, and increased each night by the hundredth of a grain until a controlling dose was reached in each case. Four-hundredths of a grain was the least amount found to control the enuresis, while some cases required eight-hundredths. No amount of the drug short of that producing the full physiological effect was of any avail. In nearly all the cases the nocturnal urination was controlled, but only temporarily; it returned as soon as the drug was discontinued or within a month. The ultimate result was that only two cases were cured, two were benefited, while in eleven there was complete relapse to the original condition.—*Archives of Pediatrics*, September, 1890.

Quadruplets.—Dr. J. DeLeon reports the birth of quadruplets to a blonde, thirty-six years of age, who had already given birth to ten children—twins three times. To her last husband she had been married three years and had borne him eight children. What wonder, then, that when informed of the quadruplets he "fell across the bed by his wife's side, threw his heels high up in the air, clasped his legs with both hands, and with a long wail of despair, cried: 'Lord God, doctor, what shall I do?' " The children all lived and thrived, and at last accounts were about to start on an exhibiting expedition, so that the poor husband's question was answered.—*Archives of Gynecology, Obstetrics and Pediatrics*, July, 1890.

Irrigation of the Pharynx in Scarlatina.—PROF. HUTINEL holds that the complications of scarlatina are not due, in the main, to the disease itself, but arise from secondary infections. "The microörganism of scarlatina is not yet isolated, but we now know the germs that are found in the lesions produced by the usual complications of the disease. In nearly all the cases of adenitis, arthritis, nephritis, endocarditis and pleurisy from scarlatina, the bacteriological examination has shown a streptococcus that is very much like, if it is not the same, as Rosebach's pyogenic streptococcus. This is certainly seen in the pharynx as the disease starts, and it certainly plays an important part in the genesis of the inflammations that are seen there, and it is probable that it is owing to these inflammations that it can penetrate into the general economy. If, then, the pharynx is the real point of entry of the germs which are found in the secondary lesions of scarlatina, it is not astonishing to find an exaggerated development of the lymphoid tissues, and in fact, we find, constantly, enlarged tonsils, adenoid vegetations, and a general state of subinflammation in all such subjects." From these facts is deduced the importance of complete and thorough disinfection of the throat. As gargling, to young children, is impossible, *irrigation* was resorted to. A large rectal enema pump was used and a considerable quantity of boric acid solution—three per cent.—injected into the pharynx several times a day. Other antiseptics were sometimes substituted for the boric acid. The tonsils and throat were also cleaned off with a small cotton tampon wet in borated glycerine, and borated vaseline was instilled into the nostrils several times a day. A milk diet was required. Under this treatment, in 35 cases, only one death occurred. As to complications, six had albuminuria, one rheumatism, one pleurisy, one otitis, one diphtheria, but all recovered promptly.—*Archives of Pediatrics*, Sept., 1890.

Fetus in Fetu.—DR. KOLISKO, of Vienna, has presented a preparation taken from an abdominal cystic swelling in an infant five weeks of age. The cyst was a retro-peritoneal one, containing the skull, buccal cleft, with tongue and under jaw well formed, while the extremities could be distinctly traced. This formation of *fetus in fetu* was presumed to be due to the formation of two embryos on the same site, where the one in its development embraced the other, and thus retarding or suspending the growth of the enveloped.—*Medical Press and Circular.*

A New Use of the Curette.—Some months ago, writes PROF. PAJOT, a young couple came to consult me. The husband, a man of 33 or 34, of more than the average height, well-formed, had never had any serious disease. The wife, 25 or 26, of average stature, habitually enjoyed good health. Marriage, however, of six or seven years had not blessed them with children. "Sir," said the husband, "I will not conceal from you that we have already consulted another physician." He named one of the most inveterate "curetters" of Paris. "This physician," said he, "proposes an operation that will crown all our hopes. He proposes to scrape out the cavity of the uterus. But I could not subject my wife to this operation without taking further advice and I have come for yours." Questioning the young woman closely, I learned that she had never had any severe illness; her menstruation had always been regular; the flow, anticipating a day or two each month and lasting three or four days, was normal in quantity and appearance; the bowels were regular; the sleep sound; the appetite excellent. Palpation, the touch, the speculum, revealed all of the sexual organs in the most perfect physiological condition—the uterus of usual volume and in normal position, the orifice well formed and sufficiently large for a nullipara, the genital mucous membrane of a pale rose color and without the slightest trace of catarrh. The vagina was free from acid odor. In brief, the genital system was in a perfect physiological condition. Astonished at this result I turned to the would-be father and asked him to bring me a sample of seminal fluid. This he did in the evening. Notwithstanding the most careful and extended microscopical examination I was unable to find a single spermatozoon. The next morning the husband returned alone. "Sir," said I, "before your marriage you had a urethral discharge." "Yes," he replied. "About this time one of your testicles became inflamed and confined you to bed." "Yes." "Soon after the other one was similarly affected." "Yes." I had nothing further to learn. I report this case as the first coming to my knowledge in which curetting a healthy wife was proposed to restore the testicular function to the husband.—*Annals de Gynicol. et d'Obstetrique*, July, 1890.

A Later Contribution to the Study of Porro's Operation.—From an elaborate and interesting study TRUZZI draws the following conclusions: (1) It is unjust to confront the results of Saenger's operation, which belong to the period of 1882–'90, with those of Porro's operation, which date from 1876. While improvements in the *technique* of laparotomy, and the adoption of asepsis and antisepsis, have furnished splendid statistics for the conservative Cæsarean section, they have at the same time effected a noted amelioration in the prognosis of the spoliatory method. The two operations, therefore, should be compared in synchronal series. (2) Applying the principles of impartial selection to Porro's operation, so often done under unfavorable, even desperate conditions, we find that while, from 1876 to September, 1884, the mortality in operations done under good or at least tolerable auspices, reached 36.36:100, and for Italy alone 42.5:100; during the subsequent period ending Dec. 3, 1889, it diminished markedly, scarcely reaching 15.9:100. In certain clinics, as those of Turin, Milan, Florence and Lucca, during the latter period, the ratio of success in a relatively large number of cases by various operators, is so high as to challenge comparison with the incontestible triumphs of Saenger's operation in the German clinics. (3) The selection of Saenger's operation, therefore, for the sole and assumptive reason that it affords a lower mortality than Porro's operation is unjustifiable. The circumstances, then, which, *ceteris paribus*, would really influence the results of these rival procedures, and not the presumed intrinsic gravity of Porro's operation should determine our choice.—*Annali de Ostetricia e Ginecologia*, May-June, 1890.

Alexander's Operation for Retrodeviations of the Uterus.—DR. GAIRAL, SR., offers the following conclusions: (1) Alexander's operation is a blind one. (2) In many cases it is contraindicated. (3) It must often be supplemented by operations on the vagina and the vulva. (4) It is generally a bad operation. (5) It does not correct backward displacements complicated by adhesions. For these reasons Dr. Gairal inquires if prudence does not dictate a thorough trial of pessaries before resorting to this operation—presenting, as it does, so many objectionable features. —*Gazette de Gynécologie*, Aug. 15, 1890.

Electricity in Uterine Fibroids.—At l'Académie de Médicine de Paris, DR. GAUTIER read a paper of which the following is a resume: (1) In the treatment of uterine fibroids, electricity was first used by the extra-uterine or vaginal method, and in the form of galvanism interrupted or reversed. This method has been revived under the name of the electrical tampon and has been wrongly extolled as the best method. (2) Since 1883 Gautier has used in its entirety the method of Apostoli, which consists in the mono-polar galvano-chemical cautery of uterine mucosa. He has made 1329 applications in 67 cases, of which 62 have been symptomatically cured, four have been unrelieved and one has ended in death, undoubtedly due to unrecognized disease of the annexæ. Of the four failures, two were proved by their subsequent course to be cases of malignant disease. (3) The first effects of treatment are to relieve pain and hemorrhage. The positive pole is hemostatic and should be used in hemorrhagic cases. (4) The current intensity should vary with the case. Clinical observation, however, shows it should be made as high as possible without causing severe pain; strong currents hasten the case both symptomatic and anatomical. Feeble currents used for pain generally fail to produce rapid hemostasis. Gautier uses currents varying from 30 to 250 milliamperes, 126 to 140 being the mean. This treatment restores the strength of the patient and assures a symptomatic cure, while at the same time it diminishes the size of the tumor in a varying but notable degree. (6) This method is neither powerless nor dangerous and, in the face of hysterectomy, with a mortality of 42.85:100, and of castration with a mortality of 13.3:100, it becomes of necessity the initial treatment in every fibroid. (6) A grand total of more than 2,000 reported cases and more than 30,000 applications, demonstrate the innocuousness of the treatment and the rapidity with which it has come into professional favor.—*Gazette de Gynécologie*, May 1, 1890.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal.,
J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal., and
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The Surgical Treatment of Acute Intestinal Obstruction.—This condition was the subject of an extended discussion at the recent meeting of the British Medical Association (*British Medical Journal*, October 11, 1890). **Mr. J. Greig Smith** said that to surgery alone could we look for the cure of these cases. It still too often remains a last resource, and nothing that surgeons can say seems likely to remove it from this position. The subject is usually in a pitiable plight. His vital powers, tried by the disease, are further depressed by opium, the stomach and intestines disturbed by medicines as well as the diseased condition. Acute obstruction of the bowels is a complicated disease composed of many elements, one of which is mechanical constriction of the bowel. The other elements are the general state of the patient, and his capacity to bear operation, and the special state of the intestinal tract. We must temper our operation to the tolerance of our patient. If the patient is seen early, before opiates have dulled his sensibilities, he vomits vigorously and empties the stomach at each effort. The presence or absence of fecal vomiting should have little influence on our operating. The anesthetic should be preceded by a stimulating enema of brandy. The incision should be made in the middle line below the umbilicus, and need rarely be more than two inches long. Through the opening the bowels are inspected, turned gently to one side and the other, pulled upwards and downwards. The piece of gut most distended with gas rises to the surface (this is not the case in distension with fluids), and often presents at the opening. A short inspection and comparison enables us to fix on the most likely coil; this we follow up in the direction of increasing congestion and distension; it will almost certainly lead to the cause of the obstruction. This we deal with according to well known principles. The relief of the obstruction is shown by a rush of gas from the distended bowel above, into the empty gut below. In case the patient is seen later, when his strength is waning and he is no longer able to vomit up the fluids as rapidly as they are poured into the stomach from the irritated intestines, the intestines are becoming filled with fluid instead of gas. The patient's features have become pinched and drawn, and the skin begins to feel cold and clammy. The pulse is 120 or over, small and wiry; respiration is quick, shallow, and the patient occasionally sighs or gasps. In this condition anesthesia is full of risk. The distended stomach should be emptied by passing a stomach tube before anesthesia is begun. The anesthetic should be continued no longer than is necessary to make the parietal incision and place the sutures ready for tying—that is to say from three to five minutes. All further manipulations may be carried out without pain to the patient while he is recovering from the anesthetic. In this late stage, the intestine nearest the constriction will probably be distended with fluid instead of gas, and will be sunk down into the cavity below the air-containing bowel that may lie under the opening. Although the direct cause of obstruction has been removed, the intestinal contents do not pass on, or only a little passes: (1) Because the overdistended bowel is helplessly paralyzed and powerless to contract on its contents; and (2) There is mechanical obstruction from the distended bowel being kinked at its numerous acute flexures. To relieve this and at the same time to remove the numerous other evil effects of distended abdomen, the intestine should be evacuated and drained. This is done by bringing a distended but not inflamed portion of intestine to the surface, and to the four corners of an area about an inch square four quill-sutures are inserted. These are tied, two on each side, to strips of adhesive plaster, carried around the back and fixed on the abdomen. The intestine, its outer coats being incised by a scalpel, is now gently pierced by a large needle—by preference in connection with a large aspirating receiver. A piece of tubing connected with the needle will answer in place of the receiver. When the evacuation has been thorough the needle is removed and the small opening closed wtth a continuous stitch. The intestine is well cleansed and returned. If the evacuation of fluid has not been sufficient, a piece of tubing of small calibre is placed in the needle opening and left there for a day or two with the bowel fixed as above described. If the obstruction has not been relieved, the tubing can be left in place for a week or till the patient gains strength to permit completion of the operation. In case the patient was too profoundly collapsed to stand an anesthetic, he would also be too weak to endure a severe operation. Still something may be done. A small abdominal incision, not over an inch long, under local anesthesia, should be made, and no sutures will be required. The bowel is caught and fixed as described above, with four quill-sutures, and the surgeon sits by the patient and carries out the necessary proceedings for intestinal evacuation. If such a patient, by this means and liberal stimulation by the rectum, can be tided over forty-eight hours of his life, he can probably be saved.

Tetanoid Convulsions in an Infant—Operation—Recovery.—DR. RONALDSON reports the case of an infant, which, on the ninth day after birth, cried much, the left eye winked, the muscles of the left side of face twitched, and the left side of the tongue swelled up in marked contradistinction to the right. He was a strong, well nourished child. The labor had been normal in every respect. The umbilical cord was unusually thick, from an excessive development of Wharton's jelly. The symptoms began and progressed so slightly that the doctor was not called till two days after the onset of the disease. Although it was the eleventh day the cord had not separated and tetanus from the unhealthy cord was suspected. With the exception of the convulsions the child was the picture of health, with normal temperature and good digestion. There was a distinct putrefactive odor from the black, dried up cord, otherwise there was nothing abnormal to be seen about it. At this time the convulsions were confined to the left side of the body; restlessness led to tonic muscular contraction, and that was succeeded by well-marked clonic convulsions. Between the attacks the child appeared perfectly well. The cord was separated with scissors, the stump carefully washed with sublimate solution and dressed with zinc ointment, one drop of chlorodyne with water was given in six doses. The attacks became worse. Six grains of bromide and four of chloral in twenty-four hours had no effect in reducing the number or severity of the fits, nor had two grains of chlorodyne every four hours, nor local applications of a 20 per cent. solution of cocaine. The whole muscular system was ultimately involved in the convulsions, which increased in severity and frequency, until 204 were counted during twenty-four hours. No local or general treatment seemed to have any influence. The stump seemed to be doing well. On the 22d day of the disease, the umbilicus was freely and deeply excised. There was immediate improvement in the fits. Four days later there was recurrence and three silkworm-gut stitches were removed as there was evidence of irritation from them and the attacks again decreased in severity and number, but did not entirely disappear. The child seemed better when the wound was dressed with carbolic lotion. Sulpho-carbolate of soda was administered in two grain doses every two hours, and seemed to influence the convulsions for good. The fits continued to diminish in frequency to the 45th day of illness, when they disappeared altogether.—*Edinburgh Medical Journal*, October, 1890.

The Prevention of Shock During and After Operations.—DR. STEPHEN SMITH, in a paper upon this subject (*Medical News*, October 11, 1890), alludes to the fact that notwithstanding the great improvements in the treatment of wounds, the mortality from operations due to primary and secondary shock, has not diminished, if, indeed, it has not increased. This is ascribed to more prolonged operations, nausea from anesthetics, and the chilling dressings now applied. In the pre-anesthetic days, rapidity of operation was the standard of perfection, and everything was sacrificed to that end. The tendency now has been to go into the other extreme, with the result that primary shock has diminished, but that secondary shock has increased. At the American Surgical Association in 1888, this subject was fully discussed, the following preventive means being proposed: "Wait for reaction; calm the patient by a cheerful word; give stimulants before the anesthetic; make anesthesia short; operate as rapidly as practicable; dress quickly; avoid chilling the patient. After the operation apply dry heat; give liquid nourishment, with stimulants and laudanum, by the rectum; inject brandy subcutaneously; by the mouth give aromatic spirit of ammonia, and also black coffee and brandy; secure quiet, a horizontal position, and sleep; assure the patient that all is over and doing well." These precautions are such as would naturally suggest themselves, and in spite of them secondary shock is very liable to occur. Dr. Smith says that, fully realizing the danger of shock in many modern operations, he has been accustomed, when possible, to prepare his patients by stimulation to the extent of semi-intoxication, and with excellent results. His method is as follows: "Give the stimulant in hot milk, beginning from *eight to ten* hours before the operation. Such quantities are given, and so frequently as to secure a state of happy indifference to the operation on the part of the patient. If the operation is to be at three o'clock in the afternoon, I give directions to commence at six or eight o'clock in the morning. I prefer whiskey to brandy, owing to its slow and persistent operation over a much longer period. If the patient is not accustomed to the habitual use of stimnlants I order an ounce of whiskey every two hours in half a pint of hot milk. If at twelve o'clock, or even at ten, sufficient progress has not been made to render it quite certain that semi-intoxication will be secured at the appointed time, I give an ounce of whiskey in milk every hour during the remaining time. When the requisite effect has been obtained the stimulation should be discontinued. In the case of habitual drinkers I have given two ounces every hour. It is important to give the stimulant in hot milk, which will furnish a large supply of easily-digested and readily-assimilated food, in a form most useful to sustain the vital energies during the critical period of a severe operation, or during a necessarily protracted operation." These patients have suffused eyes, a flushed skin, a slow, full pulse, and complete indifference to the operation. They are kept warmly covered when on the table and the anesthetic is directed to be suspended as frequently as possible. He remarks, in opposition to the prevailing opinion, that these patients come under the influence of ether very quickly, and that only a small quantity is required. In addition to the warm clothing he advises that the wound be douched with hot water, containing the disinfectant, by which he means a temperature of 145° to 150° F., the hand being a sufficiently good test. The water must not be allowed to remain in contact with the tissues, but be used as a douche only, that is dashed into the wound from a pitcher so as to penetrate every recess. The wound surface turns a dull-gray color, all oozing of blood is arrested and this arrest is permanent, secondary bleeding not occurring. The dressings, consisting of materials retentive of heat, are then applied. Dr. Smith says that during the past ten years in which he has pursued this method, shock as an after complication has never occurred.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

Causes, Prevention and Treatment of Myopia.—At the last meeting of the British Medical Association (*British Medical Journal*, September 27, 1890) this subject was very fully discussed by many oculists of extended experience. It is a well recognized fact that modern education demands such exhaustive and constant use of the eyes for close vision, that it is giving rise to myopia with alarming frequency in some countries, and with great relative increase in all civilized communities. This tendency is most noticeable in large cities where there is little occasion to relieve the eye by distant vision. At the meeting referred to Mr. Priestley Smith opened the discussion by propounding the following questions: (1) Is myopia a disease? (2) Can we prevent its occurrence or lessen its frequency? (3) On what general principles shall we deal with those who have it? There is a general consensus of opinion that the condition giving rise to a high degree of myopia is usually a diseased one. Non-progressive and low degrees are not considered to be due to pathological changes in the eye, and in later life are an advantage for the reason that it is compensated by the presbyopia, thus relieving their subjects from the necessity of wearing glasses after loss of accommodation. In Mr. Smith's opinion myopia is a defect, even if we regard the optical condition only. When the tissue changes, which frequently accompany it, are regarded, it is still less open to question. In infancy, hypermetropia appears to be the normal condition of the human eye. During childhood the large majority of eyes become emmetropic, or nearly so; in other words, the refraction increases with the growth of the eye in very early life. The length of the eye increases more than the focal length of the media. If this increase be insufficient, the eye remains permanently hypermetropic; in other cases it is excessive, and more or less myopia is permanently established. In many cases of moderate myopia, and in nearly all of high degree, we find morbid tissue changes which imply something very different from redundant growth, namely, extension, thinning, and atrophy of the tunics in the neighborhood of the optic nerve—changes showing that the strain falling on these membranes in this situation is greater than they can adequately bear. The position and nature of the atrophy, the conditions of life under which it is chiefly met, its increase under certain circumstances, its non-increase under others—all indicate that it is caused mainly by the action of the muscles during convergence of the eye, at a time of life when the sclera in the neighborhood of the optic nerve cannot adequately bear the strain; in other words, to over use of the eye for close vision. According to Donder's, strong convergence, the stooping position, and certain predisposing conditions are principal causes of staphyloma posticum, and staphyloma posticum is almost synonymous with myopia. The predisposing causes, except heredity, are not definitely determined. Children are rarely born myopic, but children of myopes are much more likely to develop myopia than those of emmetropes. Myopic parents ought therefore to be doubly careful to protect their children from the active causes of myopia. To prevent myopia, we must prevent young people from using their eyes too long upon near objects. Educational pressure, without due precautions, has led, in Germany, to an enormous and calamitous development of myopia. The question of prevention is mainly one of school hygiene. Elaborate rules concerning school buildings, furniture, books and hours have been formulated. The present need is a wider knowledge of them among the public. It is important that every teacher should understand in a general way the mischief which may be done by overstrain of the eyes. A periodical testing of the bodily condition, including, especially, stature, weight, hearing and vision, should accompany the usual examinations in mental growth. The duty of the oculist and physician is to induce the public to act on the knowledge we already have on the subject. The earlier in life the myopia begins, other things being equal, the more likely it is ultimately to attain a high degree; and the more the patient is engaged in reading, writing, or other close work, the less likely to come to a standstill. Children of myopes, developing it at an early age, are especially in need of restriction in reading and study and of periodic examination of the eyes. Adults with high and still progressive myopia, who read, write, or sew, without glasses, because, as they commonly say, they do not require them, need the firmest interference and the gravest warnings, and must sacrifice some present convenience if they would avoid further disaster. Periodic examination of the eyes of young myopes should be made, and in case congestion or atrophic changes appear, close work must be abandoned for a time, or moderated, glasses adjusted, and a correct position of the body insisted upon. There is some difference of opinion among oculists whether the whole amount of myopia should be corrected by glasses. There appear to be good reasons, however, for full correction when the accommodation can thus be restored. Mr. Smith concludes that myopia is always a defect; often a disease. It is entirely incurable, but largely preventable. Its progress can be, and often is, accelerated by improper use of the eyes, and retarded by judicious interference. In the discussion most of the speakers agreed with what Mr. Smith had said, and insisted upon educational boards carrying out, as far as possible, all means of preventing the increase of the defect. Books should be well printed, with large, clear letters. The light should fall upon the book directly from the sky if possible, and should be plentiful and well distributed. The seats and desks should be so adjusted that a proper distance (at least twelve inches) should intervene between the book and eyes. If necessary, glasses should be prescribed.

Operative Treatment of High Degrees of Myopia.—In the *Archiv. f. Ophthalmologie*, Bd. 36, Abtheilung 2, DR. FUKALA mentions the experience of different operative methods to improve the vision in high degrees of myopia, which is of particular interest in relation to the above discussion. No method is known of shortening the long axis in these cases. The question has often been discussed whether some other means of lessening the refractive effect of highly myopic eyes could not be devised. Purkinje's attempt to flatten the cornea resulted in failure, as well as Galezowski's more recent effort at excising a crescent shaped piece. Dr. Fukala had long contemplated removal of the lens with a view of improving the vision of myopes of high degree, and being encouraged by Maunthner's statement, which contradicted Donder's teachings, he operated in two cases in 1889. Maunthner says that: optically the highly myopic patient would be much better off were the lens out of the eye. Dr. Fukala states the advantages of aphakia as compensation for loss of accommodation in this class of eyes as follows: (1) Clear distant vision. (2) Enlargement of the retinal image. (3) Many fold increase of vision at a distance. (4) Relief from strain of excessive convergence. (5) The ability to hold the head more erect, as work can be seen at greater distance. (6) The restoration of binocular vision for near objects. (7) The disappearance of spasms of accommodation, and of accommodation, two highly injurious conditions of highly myopic eyes. He has thus far operated only upon young people by needling the lens and waiting for absorption of the lens substance to take place. To avoid injurious accidents he begins by making a small wound in the capsule and repeats the needling of the capsule at a few days' interval, from ten to fifteen times, as occasion demands. The expulsion of a large quantity of lens matter at one time should be guarded against. Under certain conditions he does an iridectomy upwards to prevent an injurious increase of intra-ocular tension. The conjunctival sac is washed out with a 1:5000 sublimate solution previous to operating, and the patient is kept quiet for a half a day afterwards. The pupil is maintained widely dilated by atropine. The 19 cases operated upon, varied from $\frac{1}{5}$ to $\frac{1}{25}$ normal vision before operation, and the result showed an improvement of from $\frac{2}{7}$ to $\frac{1}{2}$ normal after. All cases showed much improvement in visual power—one even twelve times more several months after than before operation.

SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

AND

DERMATOLOGY.

By D. W. MONTGOMERY, M. D., Professor of Pathology, University of California, San Francisco.

Incontinence of Urine in Children.—VAN TIENHOVEN believes this to be due to insufficiency of the sphincter muscle of the bladder, following penetration of urine into the prostatic portion of the urethra, and secondarily due to reflex action on the expulsor muscle of the canal. Elevation of the pelvis, previously emptying the bladder, so that there is no contact of urine with the sphincter muscle, is the best treatment.—*Médicine Moderne*, August 21, 1890.

Rarity of Venereal Disease Amongst the Working Men of France.—DR. L. FIAUX has recently made some observations on this subject. The men were applicants for service in the Northern Railway Company of Paris, from September 1, 1888, to July 1, 1890. In the first series 1810 laborers were examined, all robust—and from 20 to 40 years of age—with the result that 2 cases of blenorrhea, and one of simple ulcer with suppurating buboes, and not a single case of syphilis were found, The second series embraced 678 men, a large majority of whom were unmarried, and in this but one venereal case was found. The investigation was undertaken as the result of a statement by the eminent Prof. Fournier, that venereal diseases, and notably syphilis, were increasing considerably in their percentages.—*Gazette des. Hôpitaux*, September 18, 1890.

Treatment of Epithelioma of the Face with Acetic Acid.—At a recent session of the French Society for Dermatology and Syphilis, ARNOZAN reported 8 cases of epithelioma of the face, commencing in the sebaceous glands, treated locally with acetic acid. The applications were made either with a piece of wood or a glass rod, or, where the disease was very extensive, with a brush, every second day, or daily, or even several times a day. During the first sittings crystallized acetic acid, diluted either one-half or two-thirds with water, was used; later on the pure acetic acid was applied. The treatment causes pretty lively burning, which, however, lasts but a short time. The crusts adhere at first closely, and afterwards begin to loosen up at the edges. The treatment must be discontinued till the crusts fall off, and a rosy granulating surface is left. The ulcerating area grows smaller after each application, until finally a smooth, white scar is left. The patient can carry out the treatment himself, and no very elaborate dressing or bandage need be worn. Arnozan has not tried this method in deeply ulcerating epitheliomata with swelling of the lymphatic glands, and therefore cannot say whether, in such cases, it would be efficacious. In the above mentioned cases the treatment was successful.—*Therapeutische Monatshefte*, September, 1890.

Treatment of Scabies with Carbolic Acid.—TRESILIAN advises (*British Medical Journal*) the use of carbolic acid in oily solution (carbolic acid 1 part, olive oil 15 parts) for scabies. He recommends it because it relieves the itching immediately, and does not cause any inflammation.

Israel strongly advises against its use, even in oily solution, because of the possibility of poisoning. Toward the close of the sixties, while the toxic effects of this acid were yet little known, it was frequently prescribed externally in skin diseases, and many cases of dizziness, dyspnea, sickness at the stomach, and loss of consciousness were observed, follow- a few minutes after its use. Even cases of sudden death were reported. Tresilian quotes four cases where death with symptoms of carbolic acid poisoning followed the external application of a solution of carbolic acid to a large surface. One of the most interesting of these was reported by Kohler in the *Würtemburg med. Correspond.*—Bl. xlii, April 6, 1872. A young man had had rubbed into the skin a solution of carbolic acid (1:8) as a cure for the "itch." He died in a few minutes, suffering from symptoms of carbolic acid poisoning. Hoppe-Seyler examined the blood after death, and demonstrated the presence of carbolic acid. Israel maintains that these cases are sufficient to show the absorption and poisonous action of carbolic acid, even when used externally, and its recommendation is to be discouraged in diseases for which we have other better, surer, and, at the same time, absolutely safe remedies.—*Therapeutische Monatshefte*, Sept. 1890.

Intestinal Syphilis.—MM. HAYEM and TESSIER, after reviewing the literature of syphilis of the intestinal tract (*Révue de Méd.*, No. 4, 1889), give the history and *post-mortem* appearances of a patient, thirty-two years of age, who came under their treatment with a papulo-squamous syphilide, and suffering at the same time with symptoms resembling typhoid fever. The autopsy revealed numerous ulcers in the ileum and large intestine, which are differentiated by the authors from ulcerations resulting from tuberculosis, typhoid fever, dysentery leucemia, etc. Syphilis localizes itself in the lymphoid organs, Peyer's patches, and the solitary follicles. In the first stage, only a small-celled infiltration is found; later, ulcers with thickened edges, filled with purulent yellow-colored masses. All the layers of the intestine are involved, the peritoneum is often thickened and covered with membrane. In old cases cicatrices are encountered with marked retraction. It is impossible to give a clinical history of the disease owing to the small number of cases so far observed. A severe, long continued diarrhea, with bloody stools, is the most characteristic symptom. The authors believe that such cases are more common than would appear from medical reports, and that they deserve careful study.—*Journal Cutaneous and Genito-Urinary Diseases*, September, 1890.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

Iodine in Obstinate Vomiting.—Vomiting occurs in two opposing states of the stomach or general system. In one case inflammation or irritation of the gastric mucous membrane may exist, while in the other depression and depraved functional activity prevent the organ from retaining food by some nervous reflex process which we do not understand. The former may be controlled by full doses of aconite; the latter by small or stimulating doses of ipecacuanha. The tincture of iodine is particularly useful in those forms of vomiting associated with depression of the stomach. M. ROQUES has employed this drug in the vomiting of tuberculosis in its early stages, with good results, and recommends its use in chronic gastritis and simple gastric ulcer. He also thinks it valuable in the vomiting of pregnancy and in chlorosis. The tincture should be given, adding ten drops to four ounces of water, one-third of which should be taken immediately after a meal which produces the nausea.—*Medical News*, August 23, 1890.

Cannabis Indica in Affections of the Stomach.—One of the most troublesome symptoms of functional derangements of the stomach is the accompanying pain. This may take the form of colic, due to gaseous distension. Heartburn, or the mere sensation of weight and malaise referred to the epigastrium. Nothing, according to PROF. GERMAIN SÉE, gives so much relief in this class of affections, as the extract of cannabis indica in one-third of a grain doses. This drug does not interfere with digestion, while the irritability of the stomach is overcome. The usual dietetic and medicinal treatment is also necessary, and when there is hyperacidity of the gastric contents, alkalies should be given three or four hours after a meal. It is necessary to bear in mind that no relief is afforded in atonic or dilated conditions of the stomach.—*Medical Press and Circular*, August 13, 1890.

Oil of Wintergreen.—DR. J. D. STAPLE writes to the *Lancet*, endorsing the external application of oil of wintergreen as a remedy in the treatment of sub-acute and chronic rheumatism. In forty cases of sub-acute rheumatism a liniment composed of equal parts of olive oil and oil of wintergreen was applied to the joints, which were afterwards wrapped in cotton wool and lightly bandaged. In each case the pain ceased from five to six hours after the application. It is in the more chronic cases that the oil of wintergreen is most useful; indeed, in more than one hundred cases, there were only two who did not experience any relief from the liniment. In this last class of cases it is most essential that the liniment should be thoroughly rubbed into the affected parts.

The Salts of Gold and Silver in the Treatment of Pulmonary Phthisis.—At the Berlin Congress, KOCH stated that among the remedies capable of bringing the malady to a standstill, the salts of gold and silver are of the greatest value, and that among these the first place must be given to "cyan-gold." At a meeting of the Lower Austrian Industrial Union, HERR REUTER, director of great *fabriques* of metallic wares at home and abroad, made some statements regarding the health of employes, which appear to support Koch's opinion. He observed that, among the men occupied in galvanically gilding or silvering, those who had consumptive or tubercular symptoms, some, indeed, who suffered from hemoptysis, found marked relief in their work, and continued to improve so rapidly that in a few weeks their return to health was assured. Herr Reuter's impression was confirmed by the statements of phthisical employes engaged on this class of work. Further investigation strengthened the opinion still more, till it appeared that for the disease in question a heal-ing virtue resides in the prussic acid generated, particularly in those workshops where "cyan-metals" dissolved in "cyan-kalium" are used. Impressed by Koch's views, the Medical Association of Vienna has since bestowed special consideration on Reuter's experiences embodied in his paper, and, while admitting the confirmation given to Koch's views by Reuter, it is of opinion that the honor of priority in discovering the efficacy of gold and silver in the treatment of phthisis pulmonalis belongs undoubtedly to the latter.—*Lancet*, August 30, 1890.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

The Treatment of Diabetes Mellitus.—DR. I. SEEGEN, in a paper read before the International Congress, at Berlin, says that more than 30 years ago he learned that diabetes manifested itself in two forms. In the first, sugar is excreted only if carbohydrate is taken in the food; in the second, sugar excretion is independent of the food taken. Pavy's investigations up to this time encouraged the belief that the formation of sugar in the body was a fatal symptom. Seegen condenses the results of his investigations into the following statements: (*a*) The liver constantly produces sugar. This is proved by the fact that the liver of every living being contains 0.4 to 0.5 of sugar, and that the blood leaving the liver contains, without exception, more sugar than when it enters. (*b*) Sugar is not formed from liver starch, as Bernard believes. (*c*) The materials from which sugar is formed are the albuminous and fatty compounds. In experiments where a diet composed exclusively of meat or fat was given, as well as in experiments where starvation was carried to the point of inanition, the blood leaving the liver was always richer in sugar than that entering it. (*d*) The amount of sugar carried into the circulation in 24 hours from the liver may be calculated (1) from the difference between the quantity of sugar in the afferent and that in the efferent blood (a difference amounting on the average to 0.1 per cent.), and (2) from the way in which the amounts of blood flowing through the liver in a given space of time, approximate each other. (*e*) The sugar formed in the liver and carried into the blood from there is constantly being destroyed and consumed in the tissues of the body. If the liver be cut off from the circulation for only thirty minutes, the quantity of sugar in the blood sinks to ⅓ of its original amount. (*f*) Sugar produced in the liver in so large an amount, requires for its production a considerable quantity of carbohydrates. Hence it naturally results, that almost the entire amount of food taken is consumed in the production of sugar. (*g*) Liver starch is formed, to a great extent, from carbohydrates. Under a fat diet the liver contains almost no starch; with a meat diet it contains 2 to 3 per cent.; and with a diet of sugar and dextrine up to 12 per cent. In the light of these physiological facts, both forms of diabetes become far more intelligible. In the one, the sugar excreted is produced only from the carbohydrates ingested; we may then conclude, that the liver has lost the power of making starch (glycogen) out of carbohydrate, and can no longer act upon the starch already formed. In this form of the disease, latter by small or stimulating doses of ipecacuanha. The tincture of iodine is particularly useful in those forms of vomiting associated with depression of the stomach. M. ROQUES has employed this drug in the vomiting of tuberculosis in its early stages, with good results, and recommends its use in chronic gastritis and simple gastric ulcer. He also thinks it valuable in the vomiting of pregnancy and in chlorosis. The tincture should be given, adding ten drops to four ounces of water, one-third of which should be taken immediately after a meal which produces the nausea.—*Medical News*, August 23, 1890.

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This sugar is produced in the body. In the first form of the disease, a patient may live a long time, provided carbohydrates be denied him; but in the second form, the patient dies in a very short time. Regarding the nature of diabetes, we are yet entirely ignorant. We know with certainty that diseases of the nervous system are often accompanied by diabetes. The heredity of diabetes is at present undisputed; and diabetes often alternates with psychosis in a family. Seegen mentions that he had determined experimentally, that morphine, chloroform and curare, drugs which affect the nervous system especially, diminish to a marked degree the conversion of blood sugar. Reference was made to the remarkable discovery of Mering and Minkowsky, that an animal whose pancreas has been excised remains permanently diabetic. He had studied upwards of 1,000 cases of diabetes during the last year, and still believed as he did 30 years ago, that the disease manifests itself only in the two forms previously mentioned. The cases of both forms vary in severity. In diabetes of the milder type, the degree of tolerance for starch varies greatly. While one case responds to the introduction of small amounts of carbohydrates, by an excretion of sugar, another will take a far greater amount of carbohydrates without excreting any sugar. In general, the tolerance for sugar excretion gradually increases, and patients who were very ill at the beginning of the disease, feel very well under the same conditions later on, in spite of the fact that their urines contain large quantities of sugar. Diabetes of the milder form may be transformed into the severer kind. Seegen noticed this in youthful cases as well as in those who, through poverty or negligence, subsist on an insufficient diet. Every sugar excretion, demonstrated by the means at our command, is abnormal. A benign glycosuria does not exist. A small excretion of sugar in old people is of little importance, while in young cases, it always indicates a severe nervous affection. Cases of the milder form may keep well under favorable conditions for a long time, and he had seen patients who had remained diabetic for nearly 20 years, and who still felt comparatively well. Cases of the severer type usually die in from 2 to 3 years. He has never seen recovery, in the sense that the patient could eat starchy food recklessly without any evil effects. In the treatment we cannot attack the real cause of the disease, because we do not know it. The task is to prevent sugar-production. The diet is regulated as follows: Avoidance of carbohydrates, by a diet composed exclusively of fat and meat. Cantani believes that he has seen a cure following the prolonged use of a diet composed exclusively of meat. An absolute meat diet, if it be long continued, permits a certain tolerance for starch. Aside from the difficulty of accomplishment, an absolute meat diet has the great drawback that cases so treated quickly acquire a catarrhal gastritis and enteritis. The theory that diabetes can be cured carries with it the disadvantage, that patients from whose urine sugar has disappeared, consider themselves cured, and thinking their diet may be varied, suffer a relapse. The idea that Seegen pursues in treatment is as follows: A diet should be ordered that can be continued throughout a lifetime, with the aid of a strong determination. Meat and fat should prevail. Meat and eggs must not be allowed in *too great quantities* for the purpose of building himself up. A diabetic patient does not need more meat than any healthy person who lives chiefly on meat. With this diet, green vegetables may be ordered in any desired quantity, and sour (not sweet) fruit in moderation. Bread is indispensable for a time, and Seegen orders 40—60 gm. *per diem*, but warns against fresh bread, because this always contains starch, and if allowed, the control of the diet (over the disease) will be lost. An exclusive meat diet is to be strenuously recommended. (1) If it is necessary to decide whether the disease is of the first or second forms. (2) When wounds do not heal and when gangrene sets in, or a surgical operation is necessary. Sour (not sweet) red or white wine is allowed in any quantity, and beer in moderation; that is about half a litre. In the severe form of diabetes, abstinence from carbohydrates is important. To restrict these cases to a meat diet is not indicated, for it makes little difference whether 20 or 30 grs. of sugar more or less, are excreted, and the advantage gained is not equivalent to the privation endured. Next to the diet, the use of alkaline mineral waters is of unquestioned advantage (Carlsbad, Vichy and Neurnahr). The patient can, during the use of these waters, and some time thereafter, consume a greater quantity of carbohydrates than before, without causing sugar to appear in the urine. Carlsbad only exerts a passing influence on cases of the severer form. Seegen warns us not to send cases of this kind to distant watering places, for experience teaches that railroad journeys exert a bad influence. The reader has seldom seen any lasting benefit derived from other remedies. In children and young people, he recommends the steady use of iron waters containing some arsenic (Roucegno, Levieco and Guber).—*Boston Med. and Surgical Journal*, September 18, 1890.

Pulmonary Tuberculosis and its Cure by Facial Erysipelas.—DR. SCHAEFER (*Münch. med. Woch.*) reports a case of this kind, which on account of its rarity and importance is of great interest. The patient, a prisoner, contracted pleuritis in 1885; in the year following, bacilli were found in the sputa and pronounced signs of lung consolidation developed with the usual symptoms of phthisis. During the latter part of the year 1887, the bacilli increased in number, the pulmonary signs were intensified, intestinal complications occurred and death was imminent, when, on the 5th of January, 1888, the clinical picture became suddenly changed for the better. On this day the patient developed catarrhal angina followed by *facial erysipelas*. After subsidence of the erysipelatous pyrexia, the pulmonary symptoms gradually disappeared, until, at the time of writing, the patient is pronounced cured.—*Wiener med. Presse*, August 24, 1890. [This case is confirmatory of like, although less authentic. cases appearing at times in the medical journals. To venture an explanation of this miraculous cure, it would not be irrational to maintain that the war waged between the cocci of erysipelas and the bacilli of tuberculosis, resulted in "the survival of the fittest," with the micrococci of erysipelas as victors. In 1885, Cantani advocated the bacterio-therapeutic method for the cure of consumption, founded on the principle, that certain forms of microörganisms are antagonistic to each other, and will not thrive when together in the same culture fluid. Carrying this principle to its therapeutic application, he sought by the introduction into the economy of non-pathogenic microbes, to nullify the specific bacilli. Cantani's treatment proved useless with the crude methods then advocated, although the principle on which the treatment was founded may have been correct. Koch announced, at the International Medical Congress, that he "had discovered an agent, which rendered guinea pigs refractory to tuberculous inoculations, and which arrested the disease when once developed, though later reports indicate that he has abandoned his investigations. Grancher and Martin, in a report to the Académie des Sciences, at its meeting in August, 1890, after long continued experiments, arrive at results similar to Koch, and like him hold in reserve the nature of the agent discovered. It is, however, not unlikely that in both cases the remedy is a microbe.—A. A.]

Hypnotism and Therapeutics.—DR. NORMAN KERR, in opening the discussion on this subject before the British Medical Association, said that, as he read how recently medical men had expressed their surprise at the infliction of violence, and the performance of operations wishout pain at hypnotic *séances*, he could not help fancying that these gentlemen had been just awaking from a sleep as profound as that of the 11,000 virgins of Cologne. He believed, that in some period of a professional career, one had to get through the neurotic epidemic of mesmerism or hypnotism, like measles. He accepted practically all the alleged hypnotic phenomena as facts, but, in hypnosis, he saw only an abnormal psychical condition with exaltation of receptivity and energy. In answering the question whether hypnotism was a desirable and justifiable remedy, he said: (1) Only a limited number of persons were susceptible. (2) The after effect was a disturbance of mental balance, a dissipation of nerve energy, and nerve exhaustion; frequent repetition was apt to cause intellectual decadence and moral perversion. (3) Hypnosis was a diseased state. (4) Hypnosis was a true neurosis and if a disease were cured by hypnotism, this would only be substituting another disease. (5) Though suffering was temporarily assuaged by hypnotic suggestion, the underlying disease was not necessarily cured. The greatest successes of hypnotism were claimed in nervous diseases, which, however, were the very ailments that he had seen intensified and confirmed. In inebriety or narcomania, he had found its pretensions fallacious, but he employed, as did every intelligent physician, non-hypnotic healthy suggestions. To a trusting and receptive patient, desirous to be cured of any ailment, the directions and prescriptions of a medical adviser with decided opinions, were true suggestions of a safe, straightforward, reliable and scientific character, an intellectual interchange of thought with a conscious and thinking being, not, as in hypnosis, a mechanical impression on an unconscious, soulless mass. (6) The dangers of hypnotism were very great. Each *séance* might bring the hypnoter more under the control of the hypnotist, ending often in complete submission of the former to the will of the latter. Dr. Kerr had known the favorite and apparently most benefited patient of a high-minded medical hypnotist precipitated by the consequent nerve disorder into an asylum. (7) An electric subtle affinity, ending in disaster, might develop between operator and operated upon. (8) In the lethargic and cataleptic states, criminal assaults had been committed by medical men, who had been convicted and punished. In the somnambulistic state, subjects had been compelled by the operator's behest to commit crime. (9) It was not desirable that the control of any one's thoughts and actions should be in the keeping of a fallible fellow-mortal. It has been replied that no one could be hypnotized unless he liked. This, he claims, is only partly true, but persistence by a stronger will might break down the resistence of a weaker. Again, it was urged, that, as with chloroform, abuse was no bar to the use of a dangerous remedy. There was no true comparison. Chloroform had only a limited material influence, but a hypnotizer had versatile powers of cunning and ingenuity in the obtaining and modifying of the hypnotic process as affecting brain function. In conclusion, Dr. Kerr deprecated public mesmerism--medical, philanthropic, or commercial. If hypnotism were still held lawful, it ought not save in an emergency, to be practised, except by a medical practitioner, in the presence of another, with a third adult present, and a record kept of the object and results of each sitting, as well as of the after history of the case. But he would infinitely rather prefer that the medical profession should set its face against the whole practice, as a hazardous and unreliable remedy, never free from the risk of perilous sequelæ, liable to the gravest abuses, and inimical to the best interests of physician and patient.—*British Medical Journal*, Aug. 23, 1890.

Tests for Glycosuria.—According to the Vienna correspondent of the *Medical Press and Circular*, the tests for sugar in the urine have been the subject of controversy and investigation, many of which were considered inaccurate, and others worthless. The brothers, DRS. JOLLES, of the Chemico-Microscopic Laboratory, Vienna, have collected and examined 400 analyses of saccharine urine with a view to settling the dispute between the claimants for the different sugar tests. The visiting card test adopted by Becker (MEDICAL TIMES, Oct. 1890, p. 549) is an excellent test for practical work. But here is a likely error. The paper in Becker's card contains potassium in its texture which can be demonstrated by a drop of phenolphtaline, producing a red color when potassium is present, Thirty visiting cards from different sources tested, contained not a trace of potassium. Among the other tests, Trommer's is worthless, and errors in diagnosis are often made in its employment. Heller's test is unreliable. Seegen's test is not much better. The action of uric acid, oxybutyric acid, etc., disguises the result of Fehling's test, and makes it also unreliable. Another objection is the quantity of glucose present before any of these tests can be employed. In Trommer's 0.32 per cent. is required; while Heller's requires 0.48 per cent., a quantity too great for practical diagnosis. Only two reliable tests are at present recognized—Fischer's phenylhydrazine test and Böttger's bismuth test. As the latter test is generally known, it need not be discussed here. *Fischer's Test.*—Six to seven ccm. of urine is taken, to this is added twice as much as will go on the point of a knife of the salt of phenylhydrazine, with three times as much as will lay on the point of a knife of the acetate of soda; heat is then applied, and if the salts will not dissolve more water is added. This mixture is placed in boiling water, allowed to remain from 20 to 30 minutes, and then removed to a beaker of cold water, when the yellow crystals or plates of phenylhydrazine glucose will fall to the bottom and are distinguished by the microscope.

Myoclonia (Paramyoclonus Multiplex).—This rare affection described by Freidreich in 1881, presents a symptom-complex characterized by clonic spasms in symmetrical muscles of the upper and lower extremities developed after a sudden and severe fright. Even when of many years' duration, recovery is characteristically rapid. The spasms cease in sleep, and during intentional movements, while the coarse motor power and coördination show nothing abnormal. The electrical muscular reaction is normal, while with perfect integrity of the sensory sphere the reflexes are exaggerated. Only 29 cases of this affection have so far been reported, while the case of Dr. Erich Peiper (*Deutsche med. Wochenschr.*) adds another to the list. This case presents a symptom-complex corresponding in the main with the affection as described by Freidreich. The disease bears a close resemblance to other neuroses, the genesis and pathological anatomy of which are not thoroughly known. Seeligmüller, agreeing with Friedreich, ascribes the occurrence of the affection to an abnormal irritability of the motor ganglionic cells in the anterior horns of the spinal cord. The former writer also refers to other etiological factors, viz.: cold, and chloral and morphine intoxication. The clonic spasms of myoclonia bears some resemblance to the clonic spasms of chorea minor; but the spasms of the latter become especially manifest on intentional movement.

Some Disorders of Sleep.—DR. S. WEIR MITCHELL contributes (*American Journal of Medical Sciences*) an elaborate article on this interesting and seldom noticed subject. He premises his paper by the statement "that the sleeping brain contains less blood, or it circulates less, than the brain awake, and this is the limit of what we know." The approach to the unconsciousness of slumber and the return from it to the world of volition may be considered a part of sleep, and he shows that these periods are often disturbed by certain interesting symptoms. In falling asleep the senses fall from guard in orderly succession; this interval he calls the *præ-dormitium.* When we again awaken, and the drowsied sentinels again resume their posts, the mind gradually regains possession of its powers; an interval called in like fashion, the *post-dormitium.* The relation of the *præ-dormitium* to insanity is then considered. In the borderland of coming slumber the steadying contradictions of the external world are in a measure by degrees cut off, whilst the will still holds a slowly-lessening rule. It has long been known by alienists that the *præ-dormitium* is likely to be disturbed by hallucinations in those who are apt to become disturbed in mind. Baillarger has shown that certain persons, otherwise still sound, are liable to have, between waking and sleep, hallucinations which long precede the outbreak of insanity. These hallucinations may be connected with the eye or ear alone. Two cases are here cited in illustration: The first was that of a woman, æt.

40, who, on going to sleep, had a sense of horrible odors, which were fecal or animal. This lasted several months, and then the sounds of voices were added, at first vague, but at last accusative. The case ended in melancholia. The second was that of a lad who became insane at the age of 11, and who was troubled for some months before the outbreak by seeing animals on his bed before he fell asleep. Opening his eyes at once dispersed them. Another mental condition rarely experienced in the *præ-dormitium*, is a suddenly acquired and sometimes persistent sensation of fear or terror without any sensory hallucination. Children may exhibit this sensation of fear sometime after the scare of a dream, like the echo of an emotion, the cause of which is over. In adults this lasting sense of alarm is the product of a dream, and the victim awakens and feels for hours the fear to which his dream gave rise. *Sleep-numbness.*—This may be a local, transient, numb feeling, a faint tingling of the fingers, of a leg or of one side; or else it may be intense and present us with paresis and real defects of the touch and pain sense. In another case it may be a monoplegia or distinct hemiplegia, lasting a few moments, or growing worse during hours. In some patients they may recur night after night, or occur at intervals for years. Dr. Mitchell has observed this condition in apparently vigorous men, in those who have multiple cerebral aneurisms or endarteritis as well as in convalescent hemiplegics. The history of numbness in all its grades points to a central origin, but it may also arise otherwise. Some years ago while he was writing his book on "Nerve Lesions," he froze his right ulnar nerve with alcohol at 0° F. For ten days afterward he had more or less discomfort, but several times he was awakened by a positive numbness of the ulnar territory, which was much worse than the numbness created on the day of the experiment. As for treatment, it means anything from the treatment of neurosis to that of gout, renal insufficiency, diabetes, and what not. *Sleep-ptosis.*—In this condition, of which no mention can be found, the patient wakens with palsied lids; lifted, they fall again, *Sleep-pain.*—In this condition the cases are usually alike. It occurs in middle life. The patient falls asleep and is awakened by aching in the legs, from the sole half way to the knees. There is but one remedy—motion. *Sensory Shocks.*—This is another phenomenon of sleep, or its borders. In the præ-somnic state, of fading sensation, but never on wakening from sleep, the patient has in his head a sudden and violent sensation, and the forms it assumes may be classified thus: (1) He feels as if struck, or as if he had a shock like that which a sudden arrest of motion causes; or, it is a feeling of rending, or a bolt driven through the head. (2) Auditory—a loud noise, like that of a pistol shot. (3) Visual—a flash of light. (4) Olfactory—sudden sense of an odor. (5) Emotional discharges—abrupt sense of fear, sometimes preceding the sensory shock and sometimes following. In many cases there is an aura. These symptoms are found in some neurasthenics, in hysteria and most often in men as a result of the over-use of tobacco. The bromides and strychnine control the attacks. *Sleep-jerks*—Chorea.—Under this heading is included the common experience of a sudden jerk of the body as we are falling asleep. Dr. Mitchell has seen many cases in which scores of times each night the sleeper was awakened by a violent motor discharge of every muscle at once. In others the jerks are confined to the arms or legs. These motor discharges at times assume, through their frequency and severity, such importance as to affect health, by the destruction of sleep. Chorea in the *post-dormitium* and tonic spasm are other troubles born of slumber and lasting after it. *Respiratory Failure in Sleep*—"Where, for some reason, the respiratory centres are diseased or disordered, a man may possess enough ganglionic energy to carry on breathing well, while the will can supplement the automatic activity of the lower centres. But in sleep, these being not quite competent, and volition off guard, there ensues a gradual failure of respiration, and the man awakens with a sense of impending suffocation." This symptom is often of dangerous meaning. He has met with it in extreme neurasthenia, but in worse forms in locomotor ataxia in its paralytic stage. It seems to be a failure of the chest and diaphragmatic movements.

The Treatment of Hydrophobia.—A correspondent of the *Berliner klin. Wochenschr.* thus describes the preparation of the material for inoculation and the treatment of patients at the Pasteur Institute: A rabbit is trephined, and the needle containing the virus of rabies introduced under the dura. After 6 to 7½ days the disease develops and the animal usually dies 10 days after infection. Immediately upon the death of the animal the spinal cord is removed, placed in a sterilized glass, and the latter in an incubator for from 12 to 14 days, in a dark room, at a temperature of 23° C. Thirty minutes before inoculation, a piece of the dried spinal cord, about 1 cm. in length, is rubbed thoroughly in a mortar with 10 to 20 ccm. of bouillon (with sodium chloride). All the apparatus used is thoroughly sterilized. At the Institute they pride themselves upon the fact that abscesses have never followed the injections. The history of the patient is first recorded, and any wounds, if present, are antiseptically treated. The patient is now ready for inoculation. The lumbar regions are first cleansed with a 5 per cent. solution of carbolic acid, and then 3 gm. of the bouillon emulsion is injected. The hypodermic needles, before use, are immersed in hot oil and then dried with sterilized filtering paper. About 21 injections are made. The *séances* take place daily, Sundays excepted. The average number of patients is 70, divided as follows: 30 per cent. children, 20 per cent. women, 50 per cent. men. The percentage of mortality of the cases treated was as follows: In 1886, 0.94 per cent.; 1887, 0.73; 1888, 0.55; 1889, 0.33. The cases are divided into (1) Persons, bitten by dogs, whose disease was recognized by inoculation on other animals. (2) Persons, bitten by dogs, whose disease was recognized by veterinary surgeons. (3) Persons bitten by supposed hydrophobic dogs. Ninety-five per cent. of those treated were undoubtedly bitten by dogs suffering from rabies, and the results attained by treatment in these cases was as follows:

Year.	Number Treated.	Deaths.	Mortality. Per Cent.
1886	2157	22	1.02
1887	1513	12	0.74
1888	1374	8	0.48
1889	1533	4	0.26

Statistics further show that wounds of the head were more fatal than when inflicted on other portions of the body. Aside from location, the mortality was also influenced by immediate treatment and the activity of the inoculations. Of 2,000 patients, 892 were not cauterized; the others were cauterized with the galvano-cautery, nitrate of silver, ammonia and carbolic acid, and of these 17 died. Cauterization is only of value immediately after the receipt of the injury, and even then the effect is doubtful. The maximum number of cases was observed between the months of February and May, the minimum in September and October.

According to the recent investigations of ROUX and NOCARD, dogs are dangerous 3 days before hydrophobic symptoms are manifested, and a wound received at this time, the animals being in apparent good health, can transmit the disease.—*Annales de l'Institut Pasteur.*

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

The Warnings of General Paralysis in the Insane.—DR. GEO. H. SAVAGE has made observations on nearly 100 cases of general paralysis, and from these concluded that the disease is a degeneration rather than a specific affection, and is most commonly met with in middle-aged married men, inhabitants of cities, flesh-eaters and drinkers of alcohol. It is not common amongst the congenitally deficient or epileptics; it is a frequent follower of constitutional syphilis, especially if this disease has affected the higher nervous organs or their envelopes, and it is not uncommonly related to head injury or to causes of nerve-tissue disease, such as those produced by lead. In general paralysis there are two forms of onset, the gradual and the sudden. In the gradual onset the finer social and the finer muscular adaptations fail, and the changes and weaknesses of mind and body gradually show themselves. In the cases with sudden onset there is nothing to warn until a sudden storm arises, which may assume the character of a convulsive seizure or an attack of emotional excitement or one of mania. Among the motor symptoms are: a feeling of fatigue, sometimes related to muscular paresis. Ataxia may be one of the first symptoms or it may occur at any time during the progress of the disease; in the first instance it is generally associated with muscular defects of the hands and tongue, which are out of proportion to the progress of the ataxy, and the symptoms will be either those of exaltation or hypochondriacal melancholia, whereas if the insanity be that of the ordinary ataxia it will be of the suspicious and "persecuted" type. Temporary aphasia is one of the most striking and by no means uncommon symptoms of general paralysis. The aphasic attacks may recur and the aphasia is usually marked before changes in the handwriting, though this symptom is an early one. Facial expression is very early affected and friends often say that the patient appeared to develop a "fat face," due no doubt to a wiping out of the lines of the face. Ptosis and external strabismus are common in the diseased process, which ends in general paralysis, but rare as symptoms of the disease itself. Syphilis plays an important part. "If after a history of syphilitic cranial nerve-lesion, there are any signs of nervous instability, there is real reason to fear that general paralysis may be the result." Certain sensory symptoms will generally be recorded as having been present a year or more before general paralysis was recognized, such as headache, rheumatic pains and sciatica. The latter when double-sided, and especially if recurrent and associated with any change in habits or character, is a warning not to be disregarded. Affections of hearing and alteration in the senses of taste and smell are not uncommon. Amongst the warnings of a more mental kind the gradual loss of power of social accommodation is one of the earliest and most marked. Memory for recent events and for engagements is defective; loss of power of attention and want of persistence are very well marked; restlessness may be of motor or of mental origin. Stupid stealing and thoughtless indecency are the most common symptoms of moral failing. The instability of the patient is almost always marked by readiness to be affected by stimulants or drugs. Changes of temper and character are early symptoms, and when associated with alternations of buoyancy and depression, are of bad import. The sudden outbreak of mania is a frequent precursor of the disease, especially when it assumes the form of acute delirious mania. The author concludes by calling attention to the fact that warnings of general paralysis may be present for years, and that almost certainly they are present for a year at least, before the symptoms induce even the sensitive specialist to scent out the disease.—*Medical Press and Circular*, April 2, 1890.

Localization of Arsenic in the Bones.—M. POUCHET (*Rév. Scientifique*), insists upon the fact that whenever arsenic is administered during life—whether by hypodermic or intravenous injection, or by the mouth —it tends to accumulate in the spongy bones, especially in those of the cranium and vertebræ, where its presence may be detected long after all trace has disappeared from the viscera, and even from the liver. This localization in the spongy osseous tissue is particularly well marked when arsenic has been given in small doses spread over a long period of time. When it is given in doses capable of causing death within a few hours, it is to be sought for preferably in bones largely built up of a compact tissue. The arsenic thus accumulated is very slowly eliminated and may still be found eight or ten weeks after the administration of the poison has been discontinued, whereas the viscera often give a negative result as early as the third week. The researches of Papillon, Rabuteau, and later of Dragendorff, had already demonstrated the fact of the substitution of arsenic for phosphorus in the bone, but to M. Pouchet belongs the credit of having first demonstrated the slowness with which it is eliminated from bones—a point of very great importance in medico-legal practice. This discovery, however, would not presumably afford a solution of the problem of deciding whether or not the poison was adminisiered during life should the arsenic have been injected *post-mortem* into the veins.—*Dublin Journal of Medical Science*, June, 1890.

Craniectomy for Microcephalia.—M. LANNELOUGUE has recently reported an exceedingly interesting operation, perhaps the first of its kind, which he performed on a child, aged 4. This child, born of healthy parents, was almost an idiot. Up to its third year it had never walked, and now could only stammer out a few words, which the parents taught her with great difficulty. As an infant, the saliva ran from her mouth. Small and sickly she had the appearance of being only half her age; when walking she would stagger and now and then pronounce certain inarticulate sounds. She was indifferent to playthings and caresses. Her head was very small and deformed, the forehead low and receding, and the face prognathous. Impressed by the idea that the brain was hindered in its development by the insufficient room allowed by a small cranium, M. Lannelougue opened the cranium through the sagittal suture, about a finger's breadth from the median line, making a long narrow incision parallel to this suture and extending from the frontal to the occipital bone. A long and narrow strip of bone was then lifted out and the wound closed. Since the operation a notable amelioration has taken place: the child has become calm, all symptoms of cerebral agitation have disappeared, the intellect is developing rapidly—she plays, laughs and understands what is said to her—she dribbles no longer, and can walk a little now without support. Since this, M. Lannelougue is said to have performed a similar operation where the bone removed was longer and larger, and the patient is doing well.—*Medical Press and Circular*, July 16, 1890.

A Case of Sexual Perversion Benefitted by Hypnotic Suggestion.—DR. V. SCHRENK-NOTZING reports a case of sexual perversion probably of congenital origin, which was so much improved by 45 hypnotic *séances*, that the 28-year-old patient, who had previously never had sexual intercourse with a woman, was not only able to perform the coitus, but very soon, also, felt remorse and antipathy for the sexual intercourse which he had formerly practiced with hired persons of the male sex. The hypnotic treatment to which he was subjected at regular intervals soon wrought such a change in his feelings, that he could only have sexual intercourse with women. The patient finally engaged himself to be married to a young lady, and is said to have experienced in her company a feeling of happiness, which made him unsusceptible to other impressions. Five months after completed cure, there has been no relapse. —*Internationale klin. Rundschau—Centralblatt f. klin. Medicin.* March 1, 1890.

Chorea Among the Insane.—DR. THEODORE DILLER has arrived at the following conclusions on this subject: Among the insane in hospitals and asylums in the United States, chorea is found in the proportion of 1 to 425 patients. In all long-standing cases of chorea there is a more or less marked tendency to mental deterioration, which often terminates in dementia. Many cases associated with a considerable degree of mental impairment, enjoy fair physical health, living, apparently, almost as long as they would have done had they been free from the mental and nervous affection. The proportion of male to female is, among adults, about the same as among children affected with acute chorea. The disease in adults is found to be produced by the same causes as are active in producing it in children, but in the former, additional causes peculiar to adult life, as apoplexy, anxiety, etc., may produce the disease. It happens, though rarely, that adults are attacked while suffering from rheumatism—the disease being of about the same character, though more likely to become chronic than that commonly observed in children. The following conclusions in regard to pathology were arrived at: (1) A number of cases arise from, and are caused directly or remotely by an attack of rheumatism. (2) In the majority of cases, heart-disease is absent, and there is a negative history as to rheumatism. (3) Coarse lesions, the most common of which are recent, organized or broken down clots, acting as irritants to the motor cells of the brain, or the tracks proceeding therefrom, are in some cases the prime cause. Chorea is found at all ages; it may be congenital and directly inherited. Chorea and epilepsy are intimately related to each other; in the former, the convulsions may, as in Jacksonian epilepsy, be confined to a single member.—*American Journal of the Medical Sciences.*

Cerebral Gumma Simulating General Paresis.—ZAMBACO in *Annale Medico Psychologiques* cites a case where manifestations of general paresis appeared twenty years after the development of a chancre, followed by a syphilitic eruption. The autopsy revealed a gumma of the size of a hazel nut, in the anterior portion of the frontal lobe, near the median line. The entire brain was softened, particularly in its anterior lobes. The ventricles contained an enormous amount of serous fluid. Syphilitic lesions of the brain are attended by vascular alterations of its coverings leading to a diffused periencephalitis, which as in the above case produces clinical symptoms of general paresis. There are, however, certain differences between real and simulated general paresis. The syphilitic patient is idiotic, brutal and prematurely demented; his grandiose ideas are less expansive; he is less egotistic and more reserved and timid. The tremor of the lips and tongue, which is so pathognomonic of general paresis is comparatively slight, and sometimes absent in the former case. Tremor in the hands is frequent, though not of the same degree as in general paresis. Motor disturbances, partial or general, exist earlier in syphilitics than in paretics. Recently a similar case was diagnosed by Magnan, as general paresis associated with hypochondria: Louis A——, aged 29 years, cook; impairment of intellect; ideas of ambition and hypochondria; difficulty of speech; inequality of pupils; excitement, especially at night; food refused; death from marasmus. Autopsy: meninges not adherent, but gumma in the left hemisphere.—*Journal of Nervous and Mental Diseases*, August, 1890.

Exhibitionism a Sexual Perversion.—M. MAGNAN recently read a paper before the Société de Médecine Legale (*Progrés Médical*) on this form of sexual perversion, illustrated by the history of two cases: "Exhibitionists" are individuals not infrequently observed among men living in cities, who have the propensity to expose their genitals in public places, or to women whom they meet in unfrequented places. One of the reported cases presented unmistakable hereditary defect, and in both a typical degeneracy was present. The author classes these persons with the kleptomaniacs, the pyromaniacs and the suicidal and homicidal insane. These degenerate beings are ordinarily a great trial to the police, and are exceedingly shrewd in the avoidance of arrest. They do not appear to be capable of reformation, imprisonment having but little deterrent influence upon them. Such persons seldom have a steady form of employment. It is probable that they are psychically incapable of learning a regular trade or business, or applying themselves to its pursuit.

The Ideas of Exaltation of Paranoia.—DR. SNELL reports a number of cases illustrating the exaltation frequently observed in connection with paranoia. The essential symptom of paranoia is the delusion of persecution based upon hallucinations, which delusion is present in those cases of the disease in which exaltation appears. It is most common for the ideas of exaltation not to show themselves till after the lapse of months or years, the disorder during this time being characterized by delusions of persecution. After that the two symptoms run on together. In other cases the exaltation is present with the idea of persecution in the beginning of the disease; or, it appears synchronously with the latter, then disappears for a time, to reappear with increased force. Exaltation occasionally is absent throughout the disorder. The author differentiates melancholia from paranoia, as follows: The melancholiac bears his scourge humbly, ascribing the injuries which he believes are done him to his own wickedness; the paranoiac regards himself as the victim of malice, as innocent, and cherishes feelings of revenge. The murder committed by the latter is regarded by him as necessary to his safety; that done by the melancholiac is prompted by a feeling of compassion—by the desire to save the object of pity from future misery. In the paranoiac, ideas of duty and the tender emotions are subordinate to a hard egotism. Recovery in paranoia is exceedingly rare, but the disorder may come to a standstill—a state of comparative repose—replacing the turmoil of suspicion and dread.—*Zeitschr. f. Psychiatrie—American Journal of Insanity*, July, 1890.

A Medico-Legal View of Painless Labor.—DR. BRUNON recently reported to the Société de Médecine, of Rouen, the case of a primipara, whose labor was so nearly painless that she mistook it for difficult defecation, and would have been delivered in the water-closet, if she had not been removed from it. According to the report she felt lumbar pains and a sense of weight in the rectum, but was not aware of the flow of liquor amnii. The author infers from this case that the discovery of a new-born infant in a water-closet pan does not necessarily raise the presumption of premeditated infanticide.—*Normandie Médicale—New York Medical Journal*, September 6, 1890.

Suicide by Means of an Ordinary Pin.—A case of suicide by this means has been observed by DR. MAGNAN. The patient was suffering from melancholia precordialis, and had previously made several attempts to committ suicide. The pin which she used was an ordinary one, an inch in length, and was introduced under the left mammary gland in the sixth intercostal space. It passed through the pericardium and injured the myocardium in different places. Death took place by syncope, the cardiac arrest being due to the effusion of blood, which filled the lower three-quarters of the pericardium, although no important vessel had been wounded. This proves that acupuncture of the heart, which has been several times recommended, is a dangerous process.—*Medical and Surgical Reporter*, July 26, 1890.

Insanity in Australian Aborigines.—DR. MORTON MANNING, the Inspector General of the Insane in New South Wales, read a paper before the Intercolonial Medical Congress of Australasia, in which he gives a most interesting account of the cases of insanity found to have occurred among the aborigines of Australia. Mental disease would appear to have been a very rare affection while they were in their primitive and uncivilized condition, and the manner in which they dealt with the few cases that did arise was of the most drastric nature. If the lunatic was violent or aggressive, he was promptly slaughtered; if melancholy, he was allowed, if so disposed, to commit suicide; if demented and helpless, he was allowed to die; and only when quiet and peaceable, and when his erroneous ideas did not result in offensive acts was he allowed to continue in the tribe. In the course of time, when the aborigines were brought more into contact with civilization and its attendant vices, insanity increased rapidly in proportion to the number of the population, and Dr. Manning states that since 1868 eighteen aborigines have been admitted into the asylums of New South Wales from a population which has never during that time exceeded 2,500 and is now less than half that number. The causes of insanity were, in a considerable proportion of the cases, due to drink. The prevailing type of the malady was mania, passing rapidly into dementia. All the melancholic cases originated in jail. Three were epileptics. No case of general paralysis, or anything like it, was seen. There were twenty deaths recorded; in several cases the only cause which could be assigned was marasmus, with tubercular or other manifest ailment. The average duration of life was much shorter than in Europeans—the confinement, though tempered by many unaccustomed comforts, being apparently the great factor in shortening life.—*Medical aud Surgical Reporter.*

Imperative Ideas Bordering on Insane Delusion.—DR. HACK TUKE, speaking upon this subject before the Section of Psychology, British Medical Association, said that there are persons haunted by certain imperative thoughts and ideas, who are not insane, being painfully conscious of the nature of such thoughts. He first described the case of Dr. Johnson, whose imperative idea led to an innocent motor act not of a distressing character. The second case reported was that of a law-student, who worried himself continually in his reading as to the proper place the negative should occupy in a sentence, which imperative idea or obsession seriously interfered with his studies. In the third case a lady could perform very few actions in life without first counting a certain number of times, rendering her life miserable. In a fourth case, a lady evinced great disgust whenever she met with particular words in her reading. It was possible to trace this idiosyncrasy to her aversion to a gentleman whose name contained the same letters. She also developed the dread of contamination, to which French alienists give the name of *folie du toucher*. Dr. Tuke pointed out that there was in some people an irresistible tendency to touch, and in others not to touch certain articles of furniture or certain dresses. Imperative ideas frequently occur in persons with marked insane inheritance, though a neuropathic disposition is not a necessary factor. Characteristic of all these cases is the bondage under which the person lies to pursue a certain trivial or disagreeable line of thought, being at the same time sane in other respects. Such mental conditions can generally be traced to an emotional basis. The prognosis is not as a rule favorable, but although the particular obsession may not be gotten rid of, the patient may pass for being sane in the society in which he moves. The treatment is chiefly moral; occupation of the mind is very important and care should be taken not to combat directly the imperative idea.—*British Medical Journal*, August 23, 1890.

PUBLIC HEALTH.

By W. R. CLUNESS, M.A., M.D., Sacramento, Cal.

Mortality.—The deaths registered in 88 town districts of the State during the past month, in a population of 740,531, correspond to an annual rate of 14.76 a thousand, the total mortality having been 915. 127 deaths were due to zymotic diseases, giving an annual rate of 1.952 a thousand. Of these 30 were due to typhoid fever, 45 to cholera infantum, 14 to diarrhea and dysentery, 10 to cerebro-spinal fever, 2 to whooping cough, and 19 to diphtheria. 218 deaths resulted from diseases of the respiratory organs, giving an annual rate of 3.432 a thousand. Of these 131 were due to consumption, 56 to pneumonia, 15 to bronchitis, and 16 to pulmonary congestion; the rate being for consumption and pneumonia, 2.148 and .900, respectively. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 550,000, was 8.904. The highest rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Jose, the lowest from San Diego.

METEOROLOGY.

By J. W. ROBERTSON, B.A., M. D., San Francisco, Cal.

Summary for September.—*Temperature.*—During the greater part of September the temperature was mild and the days were as a rule clear. Even along the coast there was a marked freedom from ground fogs, the fair and cloudy days reported being due rather to high fogs than rain-bearing clouds. Along the western slope of the Sierras and north of the Siskiyou mountains only did the temperature indicate the close of summer. The days were warm, the mean of the highest or day temperature not falling below 75°, but the nights were cooler and the mean daily range was excessive. Thus at Auburn the mean difference between the day and night temperatures amounted to 35°.

Rainfall.—An excessive precipitation was reported from all Southern California stations, with a slight increase throughout Central and Northern California, especially noticeable in the Sacramento and San Joaquin valleys.

California—Tabular Statement for September, 1890.

STATIONS.	TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
	Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn ....Cal.	68.4	100.0	53.0	88.7	53.8	34.9	4	2.86	------	----	----	----	--------	Placer *Republican.*
Berkeley......... "	59.5	83.0	49.0	71.6	56.1	15 5	4	0.25	85.9	11	16	3	W S &W	Obs. Univ. of Cal.
Colfax........... "	73 1	94.0	56.0	------	------	------	----	2.75	------	----	----	----	SW.	Southern Pacific Co
Eureka.......... "	53.2	69.0	46.0	57.3	49.1	8.3	4	0.79	95.0	4	4	22	NW.	Signal Service U.S.A.
Fresno.......... "	74.6	103.0	53.0	90 4	58.8	31.7	5	1.26	48.0	20	6	4	NW.	" " "
Keeler.......... "	72.5	97.0	50.0	83.5	63.0	20.6	4	0.93	39.0	19	8	3	S.E.	" " "
Los Angeles.... "	66.7	94.0	54.0	82.3	60.4	21.9	3	0.06	71.7	12	12	6	W.	" " "
Monterey .... "	59.2	76.0	50.0	------	------	------	----	0 10	------	----	----	----	S.	Southern Pacific Co.
Napa.......... .. "	61.1	80.0	44.0	71.7	50.5	21.2	4	0.45	------	11	13	6	S.	Sta. Napa Ins. Asylum
Oakland......... "	58.8	82.0	48.0	------	------	17.9	3	0.10	80.5	12	10	8	W.S.W.	J. B. Trembley, M.D.
Paso Robles.... "	67.6	99.0	48.0	------	------	------	----	0.65	------	----	----	----	S.	Southern Pacific Co.
Red Bluff....... "	74.3	99.0	52.0	89.2	59.4	29.8	2	1.55	43.2	22	6	2	N.W.	Signal Service U.S.A.
Sacramento. ... "	68.0	94.0	50.0	85.2	55.5	29.7	2	0.80	64.2	20	4	6	S.	" " "
San Diego....... "	69.1	83.0	60.0	75.1	63.1	12.0	5	0.65	78.3	18	1	11	N.W.	" " "
San Francisco.. "	57.6	81.0	52.0	66.8	53.9	12.9	2	0.31	91.2	6	18	6	W.	" " "
Santa Barbara.. "	66.5	85.0	52.5	74 6	58.4	16.2	4	1.50	78.7	15	7	3	W.	Hugh D. Vail.
Santa Cruz...... "	68 1	93.0	45.0	------	------	------	----	0.80	------	----	----	----	S.E.	Southern Pacific Co.
Yuma..........A. T.	86.2	110.0	67 0	100.4	75.0	25.4	1	0.64	49.8	17	10	3	W.	Signal Service U.S.A.

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Occidental Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: NOVEMBER, 1890

THE TRANSACTIONS OF THE STATE SOCIETY.

The transactions of the Medical Society of the State of California, for the year 1890, have just been issued by the Committee on Publication. Their appearance at so late a date is explained by an unfortunate accident. When the edition had been delivered to the binder, early in August, it was almost completely ruined by a fire in the establishment, making it necessary to reprint and bind the entire issue. It will therefore be seen that the Committee has had a double task, for which labor, cheerfully performed, the Society should be duly grateful.

Year by year the transactions have improved, the papers are more numerous, of a higher character, and the number of voluntary contributions has increased. The committee reports also show a marked tendency to depart from the stereotyped style indicated by the Constitution and followed for many years. In this age of medical journals, any "report of discoveries and progress during the previous year," even in a "particular field," must, necessarily, be very imperfect. Besides this, the medical journals publishing periscopes, and the "annuals," have brought the matter to the reader long before he sees the volume of transactions. It is safe to say that even the most careful reports of this character will rarely be referred to in the presence of more convenient sources of reference. On the other hand, a paper embodying, perhaps, all that is most striking in progress, but impressed with the personality of the writer, is certain to receive and to retain all the attention that it merits. We hope that in future the committee reports will partake more of the character of addresses, which they really are, in their respective subjects, and that the authors will remember that individual impression and experience is a potent teacher for others.

Another point that occurs upon perusal of this volume is the undesirable length of some of the communications. It is undesirable, for time does not permit of reading in its entirety and the perforce omission of page after page by the speaker, lessens the interest of his audience by breaking the thread, whilst it is absolutely fatal to an instructive discussion. From 15 to 20 minutes for voluntary papers and 20 to 25 minutes for the regular reports, should afford ample time for careful reading. The present volume shows an increase of 74 pages over that of the previous year. The plain, but substantial binding, an innovation that met with universal favor, has been continued. As a whole it will more than favorably compare with previous numbers, whilst in the face of the trials of the hapless committee, even the mildest criticism is silent.

THE METRIC SYSTEM.

The American farmer is the most progressive of his class. He is ingenious in the device and indefatigable in the adoption of labor-saving machinery. From the sickle to the combined harvester and thresher is a stride unparalleled in the history of agriculture, and yet one that has been made within the memory of many a living man. But if the American farmer is the first to adopt labor-saving devices, the history of the metric system would almost convince one that the American physician is the last. The recent adoption of the metric system by the pharmacopeial convention of 1890, however, brings the subject again prominently before the medical profession, and, let us hope, with sufficient momentum to overcome its inertia.

While we congratulate our cousins, the pharmacists, on their good fortune, let us briefly recount the chief advantages offered by the metric system to the public in general, and to our own profession in particular: (1) It conforms to the established notation, that is, it is decimal throughout. For this reason computations in the metric metrology are identical both with those of United States money and with those of abstract numbers, and consume less than one-third of the time of similar computations in the irregular metrology now in use. Error, too, is reduced to a minimum, because the relation of units to their subdivisions is uniform and decimal, and because cabalistic signs are replaced by literal abbreviations and the decimal point. (2) It is simple. The entire system is founded on a single and unalterable unit, the metre; its nomenclature is comprised in twelve words, every one of which is now in use in the English language, has a fixed significance and expresses a value either absolute or relative, that is instantly suggested to the mind and easily retained. What a contrast to our present system, which requires for its expression about fifty words, not one of which expresses any relation whatever between units and their subdivisions or multiples, and several of which express different values as they refer to different things! (3) It is uniform and international. Thus it facilitates the study of foreign literature that deals with weights and measures; it facilitates commerce and trade. It is now the international and soon will be the universal medium of metrology. It is one step, and not a short one, toward a universal language.

For the physician the metric system possesses the same advantages, but in a higher degree. It saves him time in study; it saves him time in use; it saves him, as far as possible, from errors of the apothecary as well as from his own errors in computation and signs; it puts him *au courant* with science and the scientific spirit; it puts him in possession of the international language of metrology. The gain is several hundred per cent. on the investment.

The metric system, then, is merely a decimal system of weights and measures, whose basic unit is the metre. The metre is the ten-millionth part of the earth's equato-polar quadrant, that is, the distance from equator to pole, and in round numbers is 40 (39.37+) inches in length. It is divided into ten parts called decimetres, these into ten parts each called centimetres, and these again into ten parts each part called millimetres—just as our dollar is divided into ten dimes, the dime into cents, and the cent into mills. The gramme and the cubic centimetre are the units chiefly employed in medicine. The former is the weight of a cubic centimetre of distilled water *in vacuo* and at its maximum density—approximately 15 grains apothecary. The latter is a cube, each of whose sides is a centimetre (about $\frac{2}{5}$ of an inch) square, and contains approximately 15 minims. Both gramme and cubic centimetre are written as integers and their fractions as decimals. In the original metric system, both liquids and solids are dispensed by weight, but in its Americanized form, at a slight sacrifice of exactness, but with a compensatory gain in convenience, they are dispensed respectivelyas cubic centimetres and grammes.

Prescriptions should ordinarily be made either for ten doses or for some multiple of ten doses. In ordering a ten dose prescription, simply move the decimal point of the single dose one place to the right; and for any multiple of ten doses multiply this product by the ratio of the multiple to ten. For instance, the single dose of morphine is .01 gm.; to ascertain the quantity necessary for ten doses, move the point one place to the right making .1 gm.; for twenty, multiply this by two, making .2 gm.; for thirty, by three, for forty, by four, etc. To illustrate the ease and simplicity of decimal metrology as applied to prescription writing, we submit a specimen prescription, giving in the first column the quantities for a single dose, in the second those for ten doses, in the third, those for twenty doses, and in the fourth, those for forty doses of a teaspoonful each:

<table>
<tr><td>℞—Tr. Ver. Vir.</td><td>|1</td><td>1|</td><td>2|</td><td>3|</td><td>4|</td><td></td></tr>
<tr><td>Ext. Ergotæ Fld.</td><td>|5</td><td>5|</td><td>10|</td><td>15|</td><td>20|</td><td></td></tr>
<tr><td>Syr. Pruni Virg.</td><td>5|</td><td>50|</td><td>100|</td><td>150|</td><td>200|</td><td>—M.</td></tr>
</table>

To avoid error the vertical line is used instead of the decimal point, and for years has been printed on all the blanks we have used. In conclusion, let us assure the reader that the opinions expressed in this article are not the opinions of a mere theorist, but are the outcome of practical study and experience covering twelve years and not less than sixty thousand prescriptions.

NOTES.

After-Care of the Convalescent Insane.

Dr. Hoisholt's paper upon this subject, which will be found in another column, is timely and worthy of very serious consideration. There are now three asylums in California, with two in process of construction, so that an ample and growing field exists for the operation of the charity outlined in this paper. Physicians practising in any centre of population in this State, will frequently notice the commitment of strangers who have suddenly become insane, often through circumstances that are only temporary, acting upon an unstable nervous organization. It is especially in this class of cases that a charitable organization can do good work. These, when discharged from the asylum, are usually distant from their homes, friendless and penniless, virtually in the same condition as that preceding the attack, plus the incubus of having been an inmate of a hospital for the insane. Under the auspices of a society that in a measure guaranteed their mental status, these unfortunates would find suitable employment that, acting as a healthy stimulus, would maintain the effect begun during their detention. Dr. Hoisholt's opportunities have been ample to ascertain the need of such an organization, and we trust that the idea he has so well elaborated will soon bear fruit.

The Druggists' Circular and the Microbe Killer.

Suit has been entered by William Radam, manufacturer of Radam's Microbe Killer, against the *Druggists' Circular*, of New York, for $200,000 damages, the largest amount so far as heard from that was ever asked for in a libel suit of this kind. The action is brought to recover damages claimed to have been done the business of the plaintiff by an article published in the *Druggists' Circular* for September, 1889. This article gave the result of an analysis of the Microbe Killer, made by Dr. R. G. Eccles, a prominent chemist of Brooklyn, who stated that an identical preparation could be made by a formula practically the same as that published in our issue of August, on the authority of Prof. Searby, of San Francisco. The article alleged that while when properly used, sulphuric acid, the principal constituent of the Microbe Killer, was a valuable medicine, it was, when taken without due caution or advice, a slow but certain cumulative poison; and the theories advanced by Radam, as to the causes of disease and the proper method of treatment, were alleged to be totally erroneous. The *Druggists' Circular*, which is published at 72 William street, New York, expresses a desire to hear of any case in which unfavorable results have followed the administration of the Microbe Killer, or of any other fact that would be interesting under the circumstances. They claim to have published this analysis without malice and with the sole intention of protecting the public from the loss of their health and money by the use of a dangerous nostrum. It is hardly likely that our contemporary will hear of many cases in which serious results have followed the use of this stuff. Our experience has been that even the most credulous patients soon become convinced of its inefficacy, and abandon it after a very brief trial.

Tacoma's New Charter and Medical Matters.

The new charter of Tacoma, Wash., provides that the City Physician shall be elected by the city at large, the term of office being two years. A Health Officer is to be appointed by the Mayor and confirmed by the Council. The Board of Health will consist of the Mayor, Health Officer, City Physician, Chief of Police, and President of the City Council, the Mayor being *ex officio* Chairman. The duties of the Board are similar to those of like organizations; one inspector is provided. The City Physician will have "charge of all pest houses and indigent sick, and shall attend to the vaccination of indigent persons." It will therefore be seen that the position of City Physician promises not to be a sinecure. We think it is a mistake to make this an elective office. Medical science and politics are discordant factors and as a rule better results would be obtained by keeping the Health Department as far as possible out of the political arena. We do not think that the pest house should be properly considered as under the charge of the City Physician. This institution will often be vacant, and for long periods, whilst during an epidemic the demands upon it may be quite severe. It is certainly a better arrangement to connect the pest house with a hospital, from which medical attendance, nursing and supplies can be drawn, while in case of a severe epidemic a special physician should be appointed. Mixed Boards of Health have often been found to work well, the non-medical members being lawyers or engineers. In this instance the exact function of the Chief of Police is not at once apparent.

The Electrical Execution.

Dr. E. C. Spitzka, to whom was assigned the examination of the central nervous system of William Kemmler, executed by electricity on August 6, 1890, presents, (*Medicinische Monatschrift,*) the following preliminary report. He believes death to have immediately followed the first application of the current. Any contrary opinion, which he deplores, was indulged by the majority of physicians present, is based on a profound ignorance of primitive physiology and the ordinary signs of death. When the current was turned off the muscles were in a condition of electrical tetanus, becoming flaccid after a minute. The collapsed thorax now gave exit to a large quantity of air, which carried with it the mucus accumulated in the larynx; no pulse could be felt. The observation, that blood flowed from wounds developed on the hand by spasmodic flexion of the fingers is considered correct; but it has been frequently observed that in accidental death by electricity, the blood was unusually fluid. After detailing the *post-mortem* thermometrical changes, which are of little interest, he mentions the conditions found in the brain. Corresponding to the point of application of the head electrode, the brain seen through the dura was anemic; the surface of the fourth ventricle was occupied by four comparatively large extravasations. The pons was softened. A minute anatomical description is in preparation. Dr. B. W. Richardson, in his *Asclepiad*, comments very strongly upon what he regards as a lamentable failure in carrying out the sentence of the law. He says: "Capital murder was never more thoroughly discredited than in the late method of killing the unhappy culprit Kemmler by electrical discharge. What occurred was really worse than was prognosticated; the shocks administered were intense surface shocks, attended with extreme local action, but not affecting directly or immediately the respiratory centres. * * * The man was really killed by a clumsy stun, for which a dexterous blow from a pole ax would have been an expeditious substitute. He died by a kind of gaseous apoplexy from the tension of the gases in the blood, not by the direct action of the electricity on either the structure of the nervous system or on the muscles. At the same time it is fair and proper to state that he suffered nothing. The electrical stun is a stun too quickly applied to be painful. We may be certain that he was not really subjected to agony. * * * An ethical question is is here opened: Ought the members of the great profession of medicine, who live to prevent pain, disease, death—ought they to lend themselves, under any circumstances, to the loathsome act of playing the part of public executioner? I, for one, answer emphatically *no*. On the contrary, we ought, one and all, to strike at these barbarities and show the world that whatever insanity it may perform, we are no parties to it. It has been often and influentially suggested that a lethal chamber, such as I have constructed for the euthanasia of the lower creation, should be applied to the execution of criminals. I protest against the suggestion as subversive of the entire object of the invention; and I protest most strongly against any method of execution like electricity, or other, that shall call for the necessary aid of any man of science to carry it out, It is high time for our gaol surgeons to ask themselves whether they ought any longer to condescend to perform the miserable, so-called duty of professionally witnessing capital murder. But to take the leading part in it, *never*!" It is a matter of but little moment whether a murderer suffers a few seconds or a few minutes on sentimental grounds. It is absurd to discuss the question. But as long as capital punishment remains, it is all important for the dignity and majesty of the law and the credit of law and civilization, as distinguished from violence and barbarity, that the death sentence should be carried out smoothly, painlessly and instantly. Dr. Richardson's objection to the use of his lethal chamber is no doubt in part sentimental, as he admits that it is certain and painless. Electricity is equally certain, more rapid and, therefore, painless, needing only proper precautions in its application. Dr. Richardson believes that the electrodes should have been applied to each arm; an opinion that has also been credited to Edison. The official report on the execution, by Dr. Carlos T. McDonald, the State Commissioner in Lunacy, of New York, has been made. Dr. McDonald expresses a favorable view of the use of electricity in the case of Kemmler. He believes that death was painless, and that the first contact was fatal. He deprecates the efforts on the part of some to invest this execution with "an air of repulsion, brutality and horror." The following amendments are suggested: That one central execution plant be provided, equipped with a specially designed dynamo, capable of generating 3,000 volts, and that instruments for measuring the current be placed in the death-chamber, in charge of competent persons.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, September 23, 1890.

The President, THOS. W. HUNTINGTON, M. D., in the Chair.

Laparotomy for Gunshot Wound.—THE PRESIDENT reported a case in which he had performed laparotomy. On Sept. 15th the patient had been shot in the left hip, the ball ranging upwards and forwards and lodging under the skin near the ensiform cartilage, where it was extracted. He had vomited blood shortly after. One perforation of the stomach and five of the intestine were found and closed. At date patient was doing well and the prospect of perfect recovery was very good.

DR. G. A. WHITE, in connection with the foregoing, reported the case of a man who had been shot at the same time and place. The ball had entered the abdomen towards the middle line and slightly below the umbilicus, ranging downwards, outwards and backwards, to emerge close to the crest of the right ilium, where it was subsequently extracted. No blood had at any time been seen in the discharges from bladder or rectum. Beyond the extraction of the ball, no operation had been attempted. There were at present evidences of peritonitis, but the man's condition was by no means hopeless.

DR. F. B. SUTLIFF read a paper upon "Beri-beri." (To be published.)

REVIEWS AND NOTICES.

DRS. BOURNEVILLE & BRICON'S MANUAL OF HYPODERMIC MEDICATION. By G. Archie Stockwell, M. D., F. Z. S. Physician's Leisure Library. Detroit: Geo. S. Davis. Cloth, 50 cents; paper, 25 cents.

This little volume is a translation of the monograph of Drs. Bourneville & Bricon. The translator has appended numerous annotations and explanatory notes, all of which increase the value of the work. The various agents used in hypodermic medication are mentioned, even the newest remedies being included. A valuable feature is the invariable reference in the text to the authority for statements that are made. Numerous formulæ are given for the preparation of hypodermic solutions, but the practitioner will do well to employ in most cases the convenient tablets manufactured by some reliable firm. This book is practically the only work on this subject at present obtainable—a unique position, at once conferring upon it a special value.

THE PHARMACOLOGY OF THE NEWER MATERIA MEDICA, EMBRACING THE BOTANY, CHEMISTRY AND THERAPEUTICS OF NEW REMEDIES. Being the results of the collective investigation of new remedies, under the "Working Bulletin" system, properly arranged, classified, indexed and placed at the disposal of the medical profession. Detroit: Geo. S. Davis. In monthly parts. Subscription price $2.00. Single copies, 25 cents each.

Most of our readers are no doubt familiar with the "Working Bulletins" issued by Parke, Davis & Co., and containing all the available information regarding new drugs from the vegetable materia medica which that firm has been instrumental in introducing. These bulletins contained, in addition to the foregoing, clinical reports, experiments and the results of investigations by the profession at home and abroad. In this way an immense amount of material, much of which was very valuable and unobtainable elsewhere, has been accumulated. To preserve this and place it in a convenient form for reference, Mr. Geo. S. Davis determined to compile, index and edit it, estimating that when completed it would make a volume of about 800 pages. The necessary labor has been entrusted to competent hands. and parts I to VI have now been issued. It forms a unique and very valuable contribution to materia medica, and one which will, we believe, be highly esteemed by the profession. Part III is devoted almost entirely to cascara sagrada, and Part VI treats exclusively of cocaine, in so thorough a manner that, apparently, nothing has been omitted. The remaining parts include a number of drugs of such recent introduction that information of this character will be particularly welcome. The typography and paper are good and the price such as to place this "Pharmacology" within the reach of all.

A COMPEND OF SURGERY FOR STUDENTS AND PHYSICIANS. By Orville Hortwiz, B. S., M. D., Demonstrator of Anatomy in Jefferson Medical College; Chief of the Outdoor Surgical Department of Jefferson Medical Hospital, etc. Third edition, thoroughly revised, enlarged and improved with ninety-one illustrations. Philadelphia: P. Blakiston, Son & Co. pp. viii—210. Cloth, $1.00.

Admitting that this work possesses points of excellence technically equal to those found in the "Essentials of Anatomy," it is nevertheless not to be classed with the latter in any sense. Anatomy is an exact science. Material facts are its basis, descriptive methods are its avenues of approach, and brevity is not inconsistent with completeness. With surgery the situation is different. Multiplicity of detail and complexity of conditions must be recognized in its every feature. Set rules are in the main an abomination. Personal opinion and individual practice, ofttimes showing broad discrepancies, must nevertheless be respected. Hence it naturally follows that a catechism of surgery, which is all that is implied by a "Quiz-compend," must abound in rank empiricism; at least the subject must be dealt with in an utterly superficial manner and and from a partisan standpoint. That such a book in the hands of an undergraduate serves a certain purpose cannot be denied, but the legitimacy of that purpose is at least open to question. It seems that their morale is unquestionably bad. This being true, that they receive the endorsement of instructors is a source of not a little wonder. So far as this particular work is concerned, it must be admitted that it is carefully written, most of the subdivisions of the subject are touched upon and its illustrations are fairly good. That it has found and will find purchasers is evidenced by the fact that it has reached its third edition.

ESSENTIALS OF ANATOMY AND MANUAL OF PRACTICAL DISSECTION, TOGETHER WITH THE ANATOMY OF THE VISCERA, PREPARED ESPECIALLY FOR STUDENTS OF MEDICINE. By Charles B. Nancrede, M. D., Professor of Surgery and Clinical Surgery in the University of Michigan, etc. Third edition revised and enlarged with 30 full page lithographs and 1,800 wood cuts. Philadelphia: W. B. Saunders, pp. x—388. Cloth, $1.00.

> "A little saint best fits a little shrine,
> A little prop best fits a little vine,
> And my small cruise best fits my little wine."—*Herrick*.

It must occur to the student of anatomy, whether he be an aspirant for collegiate honors, or busy in the discharge of professional duties, that this little book best fits his little time. The author, while clinging closely to his prefatory statement that he will deal only with the "essentials of anatomy," has embodied in the work about all that is useful or attractive. He has furnished us a volume, that for conciseness and completeness, stands preëminent among the departmental hand-books. In conception and arrangement it is admirable. Each paragraph is preceded by a query, which affords a stimulant to the memory of the novice, while it awakens curiosity and interest in the casual reader, who aims at review. Its chief claim to excellence must lie in the admirable illustrations, which are in extravagant profusion. The colored plates are finely executed, faithful and suggestive of a dissection. The wood cuts are selected from standard works, and, in the main, are old friends. It is safe to say that the work will meet with approval, and its author's name become a familar one to the *habitués* of the dissecting rooms of all English-speaking nations.

MANUAL OF NERVOUS DISEASES. By A. B. Arnold, M. D., Emeritis Professor on Diseases of the Nervous System, College of Physicians and Surgeons of Baltimore, President of the Section of General Medicine Ninth International Medical Congress, with several illustrations. Second edition, revised and enlarged. San Francisco: The Bancroft Co. pp. viii.—332.

This little "manual" is something more than a handbook, though not rising to the dignity of a treatise. Its arrangement is good, beginning with a sketch of the anatomy of the nervous system, the symptomatology of nervous diseases, general therapeutics and then diseased conditions, under the proper heads. Everything is clearly arranged and the subject matter classified, making it a most satisfactory book to consult. Perhaps the most noticeable feature in the work is the very pleasing style in which it is written, a feature unfortunately infrequent in medical literature. It will form a useful companion, and one that can safely be relied upon. It is only regretable that with good paper and excellent typographical arrangement, the typographical errors and faults are not less numerous.

RAILWAY SURGERY. A PRACTICAL WORK ON THE SPECIAL DEPARTMENT OF RAILWAY SURGERY FOR RAILWAY SURGEONS AND PRACTITIONERS IN THE GENERAL PRACTICE OF SURGERY. By C. B. Stemen, M. A., M. D., LL. D., Professor of Surgery in the Fort Wayne College of Medicine; Surgeon to the St. Joseph Hospital; Chief Surgeon of the Western Division of the Pittsburg, Fort Wayne and Chicago Railway, etc. With numerous illustrations. St. Louis: J. H. Chambers & Co., pp. x—306. Cloth, $3.00.

During the past two decades the custom of employing special medical attendants for the care of the sick and injured employes by railroad corporations or by provident associations connected therewith, has become widespread. At the present time nearly all trunk lines are equipped with a more or less efficient service. While the peculiarities of railway injuries have long been recognized and commented upon by writers on general surgery, it is very natural that to those whose time is largely occupied in the treatment of such cases they should possess a peculiar interest and significance. As one of that class, the writer shares to a certain extent, this sentiment. The essential principles, however, which underlie "Railway Surgery," as a specialty, if it be correctly designated as such, are few in number, can be compassed in a limited space, and have found many and able exponents. Hence it happened that the announcement that a somewhat pretentious volume had been devoted to this department, at once raised the query, what material has been found, and what new facts have been discovered to justify the author in such a work. It must be confessed that a careful perusal of the volume has failed to answer this question satisfactorily. The two introductory chapters, dealing wlth the transportation and temporary treatment of the injured are certainly within the author's jurisdiction, and are worthy the attention of all surgeons. This portion of the work embodies much that, while not wholly original, is ingenious and useful, A few other chapters, notably those devoted to "Color Blindness," "Spinal Concussion," and methods in vogue on foreign railroads as certainly fall within the scope of the author's title. The remaining thirteen chapters comprise subjects which belong to general surgery in the broadest sense. For example, under the head of fractures is given with great minuteness such elementary items as the three uses of bones, their composition and peculiarities; the classification, causes and treatment, general and special, of fractures. In a word, we have here a resume of the subject such as may be found in any hand-book of surgery, and with which the merest tyro should be familiar. The same criticism would justly lie against the chapters upon shock, anesthetics, amputations and excisions. The disappointment of the reader, however, will not spring chiefly from the character of the matter presented, but rather from the manner of its presentation. Sweeping generalities are substituted for rules of practice. A striking illustration of this is to be found on page 125, where it is asserted that "in most cases of railway injury, where the fracture (compound) has been caused by direct violence, amputation will be required." To produce examples of gross inaccuracies, faulty construction, and inelegance of diction, which abound throughout the work, would demand more than merited space. The book can justly find no place in medical literature.

RHEUMATISM AND GOUT. By F. Le Roy Satterlee, M. D., Ph. D., Professor of Chemistry, Materia Medica, and Therapeutics in the New York College of Dentistry; late Professor of Chemistry and Hygiene American Veterinary College, etc. Physician's Leisure Library. Detroit: Geo. S. Davis. Cloth, 50 cents; paper, 25 cents.

The author having been a victim of developed inherited rheumatic and gouty dyscrasia, was enabled by the uric acid theory of causation, and the persistent adoption of the therapeutic and dietetic measures indicated, to completely remove every symptom of the trouble in himself. He has, however, not confined himself to this theory, but treats, without dogmatism, of the formulated opinions which have gained force after twenty-five years experience. What certainly detracts from the usually excellent qualities of the book, is the polypharmacy displayed under treatment.

A TREATISE ON HEADACHE AND NEURALGIA, INCLUDING SPINAL IRRITATION AND A DISQUISITION ON NORMAL AND MORBID SLEEP. By J. Leonard Corning, M. A., M. D., Consultant in Nervous Diseases at St. Francis Hospital; Fellow of the New York Academy of Medicine, etc., with an appendix. EYE STRAIN, A CAUSE OF HEADACHE. By David Webster, M. D., Professor of Ophthalmology in the New York Polyclinic; Surgeon to the Manhattan Eye and Ear Hospital, etc. Illustrated. Second edition. New York: E. B. Treat & Co. pp. 259. Price, $2.75.

The fact that a second edition of this work was demanded so soon, shows that it covered a field that had not previously been well occupied, and that it has been found useful by a large number of physicians. It is generally recognized that headaches and neuralgic disorders are uncommonly frequent among Americans. There are many factors which aid their more frequent occurrence amongst us than in countries where business life is conducted in greater moderation, and where houses are heated and ventilated more in accordance with hygienic principles. The author fully describes the pathological conditions which produce headaches and neuralgias as well as the most approved methods of treating them. Part I considers pains which owe their origin to intra-cranial causes; Part II pains which owe their origin to extra-cranial causes; Part III, methods of treatment; Part IV, irritative conditions of the spine; Part V is devoted to an interesting discussion of normal and morbid sleep. The knowledge gained in recent years of the close relationship many cases of headache bear to errors of refraction and accommodation of the eyes, makes the appendix to this edition, by Dr. David Webster, on "Eye Strain as a Cause of Headache," a very valuable contribution.

REPORTS, ANALYSES, AND NEW INVENTIONS.

Shasta Water.

We have received from the Shasta Mineral Spring Co. samples of "Shasta Water," and beverages made therefrom. This water is the product of what have been known as the Shasta Soda Springs, on the line of the Southern Pacific Co., in Siskiyou county. The water is clear and sparkling, with an agreeable flavor, in which it is impossible to distinguish any special constituent, owing to the pungency of the carbonic acid with which the water is highly charged. With Shasta Water this is unnecessary, the quantity of gas being more than sufficient. Samples that have been bottled for over a year show no perceptible change. An analysis of Shasta Water by Prof. Walter S. Haines, of Chicago. shows that the principal ingredients are carbonate of magnesium, bicarbonate of sodium, chloride of sodium and carbonate of calcium. It also contains lithium, iron and arsenic in very perceptible amounts—in all, nineteen ingredients, of which but three are mentioned as "traces." Prof. Haines has compared the water to that of Vichy and Ems, which, amongst the celebrated mineral springs, it most resembles. It is, however, far richer in the number of its ingredients and in the greater quantity of those that are therapeutically most valuable. As an alterative and tonic, we believe that this water will be found of decided value, and that more extended experience will show that it has, therapeutically, a very wide range. The water is put up in an attractive form, great care being taken in bottling and in all manipulations connected with it. Amongst the beverages we can specially commend the "Ginger Ale" as being a most agreeable and refreshing drink.

MEDICAL NEWS.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from September 16, 1890, to October 16, 1890.

Captain Henry S. Turrill, Assistant Surgeon, will proceed at once to Vancouver Barracks and report to the commanding officer for temporary duty. Par. 4, S. O. 115, Dept. of the Columbia, Sept. 22, 1890.

In accordance with the provisions of Paragraph 1662, Army Regulations, as amended by General Orders No. 38, current series, headquarters of the army, Surgeon William E. Waters, Acting Medical Director, will proceed to and inspect the medical department at the following-named posts: Fort Walla Walla, Boise Barracks, Fort Sherman, Fort Spokane, Fort Townsend, Fort Canby and Vancouver Barracks. Surgeon Waters will also inspect and submit proper reports thereof of any unserviceable hospital or medical supplies that he may find at the posts above named requiring the action of an Inspector, except at Vancouver Barracks. Upon completion of this duty, Surgeon Waters will return to these headquarters. Par. 1, S. O. 118, Dept. of the Columbia, Sept. 27, 1890.

During the temporary absence of Major W. E. Waters, Surgeon, Captain Henry S. Turrill, Assistant Surgeon, will take charge of the office of the Medical Director of the Department. Par. 2, S. O. 119, Dept. of the Columbia, Sept 29, 1890.

Colonel Joseph R. Smith, Surgeon, Medical Director of the Department, will proceed on public business to Fort Grant, Fort Thomas and San Carlos, A. T. Upon completion of the duty he will return to his proper station. Par. 1, S. O. 99, Dept. of Arizona, Oct. 2, 1890.

The leave of absence granted First Lieutenant Leonard Wood, Assistant Surgeon, in S. O. 74, Aug. 30, 1890, Dept. of California, is extended one month. Par. 7, S. O. 232, A. G. O., Oct. 3, 1890.

Major W. H. Gardner, Surgeon, is relieved from duty at Washington Barracks, D. C., to take effect on the arrival of Major Joseph K. Corson, Surgeon, and will report in person to the commanding officer Angel Island, Cal., for duty at that station. Par. 8, S. O. 232, A. G. O., Oct. 3, 1890.

Major Curtis E. Munn., Surgeon, is relieved from duty at Angel Island, Cal., and will report in person to the commanding officer Fort Monroe, Va., for duty at that station, relieving Major John Brooke, Surgeon. Par. 8, S. O., 232, A. G. O., Oct. 3, 1890.

Major George W. Sternberg, Surgeon, is relieved from duty as Attending Surgeon and Examiner of recruits at Baltimore, Md., and as a member of the Army Medical Board to meet in New York city, N. Y., and will repair to San Francisco, Cal., and take charge of the Medical Purveying Depot, at that place, as Acting Assistant Medical Purveyor, relieving Colonel B. J. D. Irwin, Surgeon. Colonel Irwin, on being thus relieved, will report in person to the commanding General Department of the Columbia, for assignment to duty as Medical Director of that department and as Post Surgeon Vancouver Barracks, Wash., relieving Major William E. Waters, Surgeon, now Post Surgeon and temporarily in charge of the Medical Director's Office. Major Waters, on being thus relieved, will report to the commanding officer Fort Custar, Mont., for duty at that station. Par. 8, S. O. 232, A. G. O., Oct. 3, 1890.

Major Van Buren Hubbard, Surgeon, is relieved from duty at Columbus Barracks, Ohio, and will report in person to the commanding officer Fort Spokane, Wash., for duty at that station, relieving Captain Henry S. Turrill, Assistant Surgeon. Captain Turrill, on being relieved by Major Hubbard, will report in person to the commanding officer Madison Barracks, N. Y., for duty at that station, relieving Major John P. Hall, Surgeon. Major Hall, on being relieved by Captain Turrill, will report in person to the commanding officer Fort Canby, Wash., for duty at that station. Par. 8, S. O. 232, A. G. O., Oct. 3, 1890.

Captain Rudolph G. Ebert, Assistant Surgeon, is relieved from duty at Angel Island, Cal., to take effect upon the arrival at that post of Major William H. Gardner, Surgeon, and will then proceed to Vancouver Barracks, Wash., and report for duty to the commanding officer of that post. Par. 15, S. O. 232, A. G. O., Oct. 3, 1890.

Captain Arthur W. Taylor, Assistant Surgeon, is relieved from duty at Fort Wingate, N. M., to take effect on the expiration of his present sick leave of absence, and will report in person to the commanding officer Fort Adams, R. I., for duty at that station, relieving Captain J. J. Cochran, Assistant Surgeon. Par. 8, S. O. 232, A. G. O. Oct. 3, 1890.

Upon recommendation of the Medical Director of the Department, Assistant Surgeon P. G. Wales will immediately proceed from Fort Huachuca to Fort McDowell, A.T., for temporary duty. Par. 1, S. O. 100, Dept. of Arizona, Oct. 4, 1890.

Leave of absence for one month, on Surgeon's certificate of disability, is granted Assistant Surgeon N. S. Jarvis. Par. 1, S. O. 107, Dept. of Arizona, Oct. 14, 1890.

Upon recommendation of the Medical Director of the Department, Assistant Surgeon P. G. Wales is relieved from temporary duty at Fort McDowell, A. T. He will immediately proceed from Fort McDowell to San Carlos, A. T., and report to the commanding officer for temporary duty. Upon arrival of Assistant Surgeon Wales at San Carlos, Acting Assistant Surgeon J. L. Ord will return to his station at Fort Grant. Par. 2, S. O. 108, Dept. of Arizona, Oct. 16, 1890.

Lieutenant-Colonel Bernard J. D. Irwin, Assistant Medical Purveyor, to be Surgeon, with the rank of Colonel. Aug. 28, 1890.

Captain Stevens G. Cowdrey, Assistant Surgeon, to be Surgeon, with the rank of Major. Aug. 28, 1890.

ITEMS.

Dr. Sam'l O. L. Potter will leave San Francisco about November 1st, to spend the winter in Paris and London, pursuing certain professional studies and investigations which have engrossed his attention for several years past. He expects to return and resume his duties about May 15, 1891.

Dr. Thos. W. Huntington, of Sacramento, is spending a three months' vacation in the East.